

**SIGN AND DELINEATOR
DESIGN GUIDELINES
FOR LOCAL ROADS**



**DEPARTMENT OF
TRANSPORTATION**

2023

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PREFACE

This manual is intended to act as a guide in the design and installation of Highway Signing Devices. The information in not intended to overrule the current edition of the Manual of Uniform Traffic Control Devices (MUTCD), the Standard Highway Signs and Markings (SHSM) or any other official publication, specification, Regional practice or work orders. All installations shall be in accordance with the manufacture guidelines. The Contract Administration Engineer should be consulted on questions you may have. To continue to provide clear and up-to-date information, your input as “hands on experts” is needed. Tables and diagrams are included in this manual for a quick reference. Periodic comparisons to official MUTCD, SHSM, standard notes, and standard plates shall be the designers’ responsibility to validate the information being used is correct.

LAWS

The designers shall familiarize themselves with the specific codes from South Dakota Codified Law (Appendix A) that deal directly or indirectly with local roads and have some implication as to signing needs and requirements. These laws were in effect at date of publication but it is the duty of every designer to know the state law, research any changes, and research any applicable local ordinances and/or resolutions which may override any standard set forth by practice or published literature.

INVENTORY

Survey, inspection, and recording of existing traffic control devices shall be conducted by the consultant by means of physically traveling each road, referencing landmarks, measuring distances, verifying sign sizes, referencing hazards, and ballbanking curves. Signs located within a given Right of Way (ROW) are owned by the governing body of the ROW and shall be included with their inventory unless documentation is provided identifying another entity with maintenance responsibility through a permit or other agreement. A copy of these exceptions shall be obtained by the consultant and retained with the project documentation.

All signs less than 5 years of age can remain in place provided it is still applicable and properly located under all current standards and provisions. All signs should have a visible date sticker attached to the back of the sign. All signs with age between 5 and 12 years with high intensity sheeting and those signs with super high intensity sheeting signs less than 18 years of age shall be stockpiled for local entity reuse. If the sign is older than these values or the sticker is missing, then the sign shall be stockpiled for recycle unless owner can identify age of individual signs. All salvaged or discarded signs remain the property of the local authority until such time they declare them as surplus and dispose as an entity to a recycling center – reference SDCL 31-28-28.

During the field inventory process, it is recommended to frequently reference in landmarks or centerline of crossroads to aid contractors in calibrating & resetting measuring equipment to retrace designer’s locations. All intersections with some form of stop/yield control shall be referenced. All one-way streets shall have the beginning and ending referenced as landmarks within the inventory. This beginning and ending point is associated with center of intersections and/or centerline intercept points of divided sections.

ENCROACHMENTS

A full encroachment survey does not need to be completed for the regional projects; however, each consultant shall keep a separate inventory of any hazardous (non-breakaway) encroachments within the clear zone. This separate inventory shall be submitted to the DOT Project Manager for follow-up with the local government entities.

ANALYSIS

Each consultant shall use and perform any Traffic Engineering Studies they deem necessary to properly analyze, apply national, state, and local laws/specification/standards, and sound Engineering Judgment in their recommendations for installation and removal of signs. Blanket replacement of existing devices will not be accepted without application of a Traffic Engineering Review.

PLAN PREPARATION

Generally, a set of signing plans will be assembled utilizing the non-section method in the following order (refer to the SDDOT Road Design Guide for additional information):

- Title Sheet
- Estimate of Quantities
- General Notes
- Location Maps

- Show breakdown of municipal boundaries and townships
- location of 0.0 MRP (Mile Reference Point) at western reference point for East-West routes and 0.0 MRP at the southern reference point for North-South routes- Note: use of geospatial locations may be used in lieu of MRP with approval of DOT.
- all routes are to be classified as an East-West route or a North-South route
- all towns and cities shall be detailed showing street names and MRP reference points
- all MRP's for towns, cities, and townships shall match same referenced location on other maps, i.e. Route Main Street (320th Ave.) in City X shows an MRP value of 18 on a county map and shall also show an MRP value of 18 on the city map.
- Tables
 - Permanent signing table shall include Route Name, MRP, sign size, Standard Highway Sign number, direction facing, square footage of new sign, sheeting type, new post data, description of sign, remarks/action that needs to be taken, two blank columns for Field Construction use.
 - New Sign Summary By Sign Number
 - New Post Summary By System
- Traffic Control – any special traffic control needs not covered by the MUTCD standard plates and/or special plan notes shall be detailed out in a plan drawing or addition of other standard plates.
- Sign layouts
 - Typical layouts and standard details shall be included in the plans.
 - All special layouts or complicated intersections shall also be detailed in a drawing showing sign placement
 - All non-standard highway sign shall be detailed showing exact placement of any symbols, legend, and/or arrows in relation to the edge of the sign as well as color, border, and radius requirements.
- Other standard details
 - Delineation standards

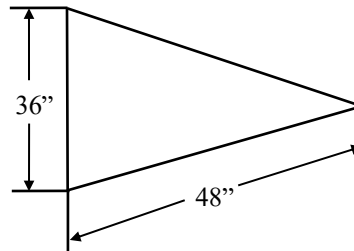
SELECTION AND USE OF MATERIALS

1. Existing Sign and Post Assemblies: All existing signing material shall remain the property of the governing entity whose property they are installed upon. Plans shall designate contact information of each entity so the Contractor can arrange delivery upon removal. The plans shall also specify that the assemblies shall be taken apart and all bolts, nuts, and washers shall be placed in individual 5-gallon pails. Backing materials shall be separated from the signs and may be reused at the Contractor's discretion. Wooden posts shall be carefully removed to avoid damage and cleaned of excess dirt and neatly stockpiled separate from the steel posts. Signs that have been determined to still have useful life in them shall be carefully stockpiled separate from those that are intended to be recycled.
2. New Posts: The design preference is to use Telespar brand (or equals) posts and bases on all new standard highway signs as approved by the Engineer. All post materials shall conform to Section 982 of the Standard Specifications and be in accordance with ASTM specifications. Signs designated as requiring a shear slip base shall have a 4 foot long base assembly with a shear breakaway base connecting the base to the signpost. The height of the post shall not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign shall be cut off. Each type of perforated tube posts will be paid for at the contract unit price per Each. The signpost contract items shall include post bases and all hardware. The lengths of the posts in the sign tables are approximate lengths only. The post lengths shall be verified by the Contractor. The Contractor is urged to cut posts to length on job site after site-by-site verification of post length. All posts and bases shall be accompanied by Certificates of Compliance and shall meet all safety standards as set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD). In some areas, signs may be placed on existing utility poles (with approval of pole owner). Number of posts per assembly shall be determined by the designer and specified per location within the plans as per the following windload calculation table:

WINDLOAD COORDINATES FOR TELES PAR AT 90MPH										
SIGN CENTROID	ALLOWABLE SIGN AREA (FT ²)									
	NO SLIP BASE				SLIP BASE REQUIRED					
	MAXIMUM 3 SLIP BASES ALLOWED IN 7' SPAN									
	SINGLE POST		2 POSTS/SIGN	3 POSTS/SIGN	SINGLE POST		2 POSTS/SIGN	3 POSTS/SIGN		
	2"x12ga perft.	2 1/2"x12ga perft.	2"x12ga perft.	2"x12ga perft.	Telescoped 2 1/2"x12ga with perft.	Telescoped 2 1/2"x12ga with perft.	Telescoped 2 1/2"x12ga with perft.	Telescoped 2 1/2"x12ga with perft.	Telescoped 2 1/2"x12ga with perft.	Telescoped 2 1/2"x12ga with perft.
16.5	6.48	10.44	12.96	19.44	18.78	20.88	37.56	31.32	56.34	
16	6.69	10.75	13.36	20.04	19.36	21.52	38.72	32.28	58.08	
15.5	6.90	11.11	13.80	20.70	19.99	22.22	39.98	33.33	59.97	
15	7.13	11.48	14.28	21.39	20.65	22.96	41.30	34.44	61.95	
14.5	7.37	11.87	14.74	22.11	21.36	23.74	42.72	35.61	64.08	
14	7.64	12.30	15.28	22.92	22.13	24.60	44.25	36.90	66.39	
13.5	7.92	12.75	15.84	23.76	22.95	25.50	45.90	38.25	68.85	
13	8.22	13.24	16.44	24.66	23.83	26.48	47.66	39.72	71.49	
12.5	8.55	13.77	17.10	25.65	24.78	27.54	49.56	41.31	74.34	
12	8.91	14.35	17.82	26.73	25.82	28.70	51.64	43.05	77.46	
11.5	9.30	14.97	18.60	27.90	26.94	29.94	53.88	44.91	80.82	
11	9.72	15.65	19.44	29.16	28.16	31.30	56.32	46.95	84.48	
10.5	10.16	16.40	20.36	30.54	29.50	32.80	59.00	49.20	88.50	
10	10.60	17.22	21.36	32.07	30.98	34.44	61.86	51.66	92.94	
9.5	11.05	18.12	22.50	33.75	32.61	36.24	65.22	54.36	97.83	
9	11.88	19.13	23.76	35.64	34.42	38.26	68.84	57.39	103.26	
8.5	12.58	20.26	25.16	37.74	36.45	40.52	72.80	60.78	109.35	
8	13.36	21.52	26.72	40.08	38.72	43.04	77.44	64.56	116.16	

3. New Signs: Details shall be provided within the plans identifying exact location of where new signs shall be installed and where existing signs are being replaced. Enough information shall be provided such that the Contractor can stake the signs and then be verified by the Engineer. Sheet Aluminum shall be as per Section 982 of the SD Standard Specifications for Roads and Bridges, 2004 Edition. The Contractor shall install a state/county/city furnished date decal on each new sign installed on the project and shall be detailed in the plans. When signs are vertically mounted in succession, they shall be 1-2 inches apart. Measurement of sign areas will include payment for the entire sign blank before trimming for rounded corners. The square unit measurement for each sign shall be as shown in the plans. Use the following square footage for these common shapes (all measurements are given in terms of inches):

48"x48"x36" = 5.6 SF (square feet)



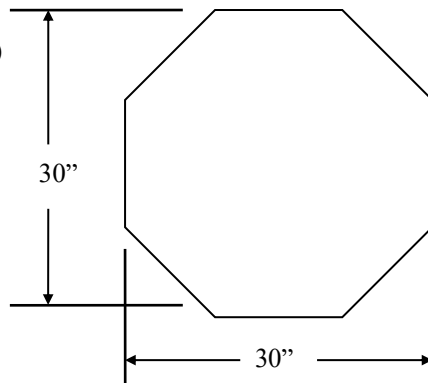
18"x18"= 1.9 SF (Bike Paths Only)

24"x24" = 3.3 SF

30"x30" = 5.2 SF

36"x36" = 7.5 SF

30"x30" = 5.2 SF

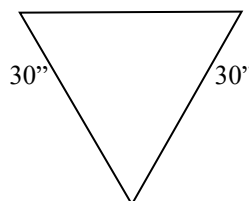


30"

30"x30"x30" = 2.7 SF

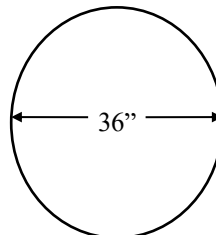
36"x36"x36" = 3.9 SF

48"x48"x48" = 6.9 SF

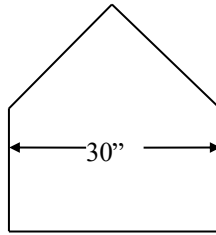


36" diameter = 7.1 SF

48" diameter = 12.6 SF



30" = 4.7 SF
36" = 6.8 SF



All legend and border utilizing the color black shall be vinyl or screen printed black, non-reflectorized material. All other legend and border shall be of same type of sheeting as the background of the same sign. All signs, except as noted below, shall have High Intensity background, Type IV as per M 268 (ASTM D4956). The following signs shall have super/very high intensity reflectorized background, Type XI as per M 268 (ASTM D4956):

R1-1	STOP
R1-2	YIELD
R5-1	DO NOT ENTER
R5-1a	WRONG WAY
All Warning Signs	
All Overhead Interstate Guide Signs	
All Delineators	
All School Zone Signs	

The warning signs shall have fluorescent yellow background. All school zone signs shall utilize a fluorescent yellow-green color where applicable.

Type 3 single sided barricades and posts shall be paid per foot based on the length of each complete barricade assembly being furnished and installed. Barricades shall be supplied in 6' or 8' wide assemblies and shall include all three bars and two posts per assembly. Permanent (longer than 6 months) barricades shall be red and white in color. Flush mount bases may be specified for locations where the barricades may be removed periodically and the road reopened.

Sign design and layout shall conform to the standards provided in the MUTCD and the SHSM. Any sign that is not a standard highway sign shall be cad drafted and submitted for approval to the Contract Administration Engineer prior to manufacturing the sign.

4. **Sign Backing:** All signs (except yield signs) of 36 inches or more in width shall have a pair of stiffeners. Signs less than 36 inches (<48" for yield signs) in width do not require stiffeners except where multiple signs are being installed on a single assembly and these stiffeners should be placed horizontally across the back of the signs. Width of stiffeners shall not be wider than the sign unless it is being used to attach multiple signs on one assembly but shall not be wider than the entire assembly as a whole. Width shall also not be less than 2" shorter than the width of the sign(s) at the installation point. Aluminum U-Channel stiffeners shall conform to Alloy 6063-T6 or 6061-T6. The U-Channel shall be 2 inches in width and free of holes. The U-Channel stiffeners shall also be used to connect various signs and perforated tube posts together so that an entire sign can be erected as a single installation. Stiffeners may be fastened to signs by use of 1/4" drive rivets with a minimum of one on each end and one centered between each post. Installation of the stiffeners shall be incidental to other contract items however the designer shall include an estimate of the quantity of material that will be needed in the plans for informational purposes. Placement of stiffener is as shown in the Special Details for each type of sign.
5. **Hardware:** All hardware shall be rust proof. The basic hardware used to erect signs consists of bolts, lag screws, washers (nylon, rust proof metal or plastic), clamps, fittings and brackets. Brackets of aluminum or steel are used when multiple sign installations, large signs, or wind conditions necessitate stronger attachment to the post as opposed to the single or double bolt. For circular aluminum or steel posts or pipe, the sign may be clamped or banded. High intensity signs should always be fastened with either a 3/8" flat metal and or a 3/8" fender metal washer over a neoprene washer against the sign face. Stiffeners may be fastened to signs by use of 1/4" drive rivets with a minimum of one on each end and one centered between each post. A 3/8" diameter straight bolt (Grade 8) shall be used in all breakaway shear bases for the 2.5" perforated tube posts. All other perforated tube signpost base material shall be fastened with 5/16" diameter corner bolts (Grade 2). All perforated tube signposts shall have a soil stabilizer attached to the base. Soil stabilizers shall be a red painted MPJ Sign Wedge

manufactured by MPJ Enterprises, Inc., 304 Spring Ave. N., Lake Preston, SD 57249 or equal as approved by the Engineer.

6. Crash Testing: All sign assemblies installed within public Right-of-Way shall meet the requirements of NCHRP Report 350 and/or MASH crash testing requirements or shall be protected by a crash-worthy device.

SIGN PLACEMENT

Longitudinal Location:

- Stop & Yield signs may be located up to 50 feet (maximum) away from edge of shoulder of a major road on intersections that have a wide throat.
- Warning signs** should be placed as per the following table from the MUTCD and these should be used as minimum distances.

Table 2C-4. Guidelines for Advance Placement of Warning Signs

Posted or 85th-Percentile Speed	Advance Placement Distance ¹								
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		0 ³	10 ⁴	20 ⁴	30 ⁴	40 ⁴	50 ⁴	60 ⁴	70 ⁴
20mph	225ft	100 ft ⁶	N/A ⁵	—	—	—	—	—	—
25 mph	325ft	100 ft ⁶	N/A ⁵	N/A ⁵	—	—	—	—	—
30 mph	460ft	100 ft ⁶	N/A ⁵	N/A ⁵	—	—	—	—	—
35 mph	565ft	100 ft ⁶	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—
40mph	670ft	125ft	100ft ⁶	100 ft ⁶	N/A ⁵	—	—	—	—
45 mph	775ft	175ft	125ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—
50 mph	885ft	250ft	200ft	175ft	125ft	100 ft ⁶	—	—	—
55 mph	990ft	325ft	275ft	225ft	200ft	125 ft	N/A ⁵	—	—
60mph	1,100ft	400ft	350ft	325ft	275ft	200 ft	100 ft ⁶	—	—
65 mph	1,200 ft	475ft	450ft	400ft	350ft	275 ft	200ft	100 ft ⁶	—
70mph	1,250ft	550ft	525ft	500ft	450ft	375 ft	275ft	150ft	—
75 mph	1,350 ft	650ft	625ft	600ft	550ft	475 ft	375ft	250ft	100 ft ⁶

¹The distances are adjusted for a sign legibility distance of 180 feet for Condition A. The distances for Condition B have been adjusted for a sign legibility distance of 250 feet, which is appropriate for an alignment warning symbol sign. For Conditions A and B, warning signs with less than 6-inch legend or more than four words, a minimum of 100 feet should be added to the advance placement distance to provide adequate legibility of the warning sign.

²Typical conditions are locations where the road user must use extra time to adjust speed and change lanes in heavy traffic because of a complex driving situation. Typical signs are Merge and Right Lane Ends. The distances are determined by providing the driver a PRT of 14.0 to 14.5 seconds for vehicle maneuvers (2005 AASHTO Policy, Exhibit 3-3, Decision Sight Distance, Avoidance Maneuver E) minus the legibility distance of 180 feet for the appropriate sign.

³Typical condition is the warning of a potential stop situation. Typical signs are Stop Ahead, Yield Ahead, Signal Ahead, and Intersection Warning signs. The distances are based on the 2005 AASHTO Policy, Exhibit 3-1, Stopping Sight Distance, providing a PRT of 2.5 seconds, a deceleration rate of 11.2 feet/second², minus the sign legibility distance of 180 feet.

⁴Typical conditions are locations where the road user must decrease speed to maneuver through the warned condition. Typical signs are Turn, Curve, Reverse Turn, or Reverse Curve. The distance is determined by providing a 2.5 second PRT, a vehicle deceleration rate of 10 feet/second², minus the sign legibility distance of 250 feet.

⁵No suggested distances are provided for these speeds, as the placement location is dependent on site conditions and other signing. An alignment warning sign may be placed anywhere from the point of curvature up to 100 feet in advance of the curve. However, the alignment warning sign should be installed in advance of the curve and at least 100 feet from any other signs.

⁶The minimum advance placement distance is listed as 100 feet to provide adequate spacing between signs.

Lateral Location:

- Lateral clearance is the distance from the edge of the shoulder to the nearest edge of the sign post, **except STOP & YIELD signs**, which are measured to the near edge of the sign from the edge of the driving lane (fog line).
- The minimum lateral offset shall be 12 feet from the edge of the shoulder (top of inslope). If a shoulder wider than 6 feet exists, the minimum lateral offset shall be 6 feet from the edge of the shoulder. On low volume roads (less than 400 ADT) an offset of 2' minimum may be used where terrain, shrubbery, and/or trees prevent the above offset to be used.

- On assemblies having more than one post, the lateral clearance is measured from the post closest to the road.
- Signs should be erected individually on separate posts or mountings except where one sign supplements another or where route or directional signs must be grouped.
- Sign location should optimize its' night-time visibility.
- Design exceptions to lateral offset may be considered if necessary to accommodate clear zone adjustments to other modes of transportation within the ROW (snowmobile trails, pedestrian paths, bike paths, etc.).

Curve Signing:

All through-routes with horizontal curves shall be ballbanked by the consultant to evaluate appropriate signing.

- If the Ball Bank Indicator shows readings of 10 degrees or more at a speed of 10 mph over the statutory/posted speed limit, the appropriate alignment warning sign (winding road, reverse curve, curve or turn) shall be installed.
- Advisory speed plates - If the Ball Bank Indicator exceeds 10 degrees at speeds 5 mph less than the statutory/posted speed an advisory speed plate shall be installed indicating the speed to the nearest 5 mph. (Example: Ball bank reading = 10 degrees at 52 mph on road posted at 55 mph. Advisory speed plate shows 50 mph.) Advisory speed plates should never be mounted without a warning sign.
- Chevrons (W1-8) shall be installed for every curve and Large Arrow Signs (W1-6) shall be installed for every turn for each direction of travel that has an advisory speed 10 mph or more different than the statutory/posted speed except on Minimum Maintenance Roads.
- On Minimum Maintenance Roads Large Arrow Signs (W1-6) shall be installed for each direction of travel for every curve/turn that has an advisory speed 15 mph or more different than the statutory/posted speed.

For non-through routes the minimum curve signing shall comply with the "Required" portions only of Table 2C-5 of the MUTCD. For higher-speed non-through routes such as dead end or no outlet signed routes consideration should be given to the same through-route criteria as above.

Railroad Signing:

Railroad grade crossing advance warning signs shall be placed as per Section 5F.03 for low volume roads (less than 400 ADT) and Section 8B.06 of the MUTCD for all other roadways.

Intersection Signing:

Right-of-way Control Signs

Stop or Yield signs shall be installed on each approaching roadway to a roadway that has been designated as a through roadway. Stop or Yield signs shall also be installed if a roadway has an increased speed (has intersections where there are sight issues that by statute sets those intersections at 15 mph). Consideration of rotational crops, trees with leaves, and bushes in bloom should be reviewed during inventory process to see if location and/or elevation are cause for concern within sight triangles at intersections.

If all directions of a given intersection are required to Stop or Yield, an All Way (R1-4) sign shall be installed under each Stop or Yield sign.

All other applications of Stop or Yield signs shall conform to the requirements and recommendations of Section 5B.02 for low volume roadways and Section 2B.04 – 2B.10 of the MUTCD. Any engineering judgment or optional use of right-of-way control signs shall be documented by the consultant.

Warning Signs

Double Head Large Arrow signs (W1-7) shall be installed at the top of each rural T-intersection as detailed in the standard plates for intersection signing.

Stop Ahead and/or Yield Ahead signs shall be used only where the Stop or Yield sign is not visible for a sufficient distance to permit the traveler to come to a complete stop.

W2-1 through W2-6 Intersection Warning Signs should be used where there is not adequate sight distance of the intersecting roadway as per Condition B3 of Table 2C-4. A W2-4 sign shall not be used in advance of a Stop or Yield sign.

Special Signing

Increase sizes and/or additional intersection signing may be used at locations where a known accident history or other special circumstances exist (frequent fog as an example) upon request of the local road authority.

SIGN APPLICATION

No Maintenance and Minimum Maintenance Roads

The designer shall obtain copies of resolutions, meeting minutes, or an official map showing specific locations of roads that are designated as No Maintenance and Minimum Maintenance by the local road authority.

Minimum maintenance roads shall have the “MINIMUM MAINTENANCE” (W70-1) with a “TRAVEL AT YOUR OWN RISK” (W70-3) supplemental sign installed at each public access point to designated section. All “NO MAINTENANCE” (W70-2) signs shall have a NO TRAVEL ADVISED (W70-4) sign mounted with it.

An advisory speed plate should be installed with the W70-1 sign if none of the road section can be traveled at the statutory speed limit.

Minimum Maintenance Roads shall be signed with all the regulatory and warning signs specified in this manual, the MUTCD, and special provisions unless specifically stated as not applicable for Minimum Maintenance Roads.

No Maintenance Roads do not require any additional signing beyond the W70-2 & W70-4 signs as specified above.

Road Closures

If a section of road is under construction or is anticipated to be closed with no construction activity occurring for a duration of less than six (6) months, then all closure signing shall be considered temporary and shall conform to Part 6 of the MUTCD by the local road authority. Permanent signing projects shall not address temporary signs. If the closure is to last longer than six (6) months with no construction activity, then it shall be treated as a permanent closure and can be newly signed as permanent closures within a Traffic Safety Signing Project at the request of the local road authority. Additionally, if existing sections of roadway are permanently closed or frequently closed due to natural causes, they too can be eligible for review and replacement of signs. The local road authority must provide the consultant a copy of resolution and/or minutes of meeting in which official action has occurred for closing a roadway.

Designers shall include standard permanent closure details within the plans where signing is being addressed on these closures with the project. Consideration should be given to use of hinged signs and flush mount bases where appropriate to allow ease of removal/implementation of travel restriction.

Type 3 Barricades

Type 3 Barricades shall be used to close a roadway where the appearance of an existing road or path exists beyond the closure point. Consultants shall use a local industry standard width of six (6) feet wide Type 3 barricade assemblies when application requires use of barricades. Permanent installation of barricades shall constitute the use of red and white colors as per the MUTCD. When a hazard exists on an existing roadway, the barricades shall be installed across the full width of the roadway as close as possible to the nearest useable landowner required access point to the hazard. If there are no useable access points, then the full closure should occur at the nearest intersecting roadway. A Road Closed sign (R11-2) shall be installed with each full-width road closure. If the closure point is not located at the nearest intersection and if the closure is not clearly visible from the nearest intersection, then a single Type 3 barricade with a Road Closed XX Miles (or Feet) Ahead Local Traffic Only (R11-3) shall be installed on the shoulder at the nearest intersection. These sign assemblies shall be installed with breakaway fixed location signposts. Skid mounts are not an acceptable option for permanent closures. If local authority access is needed to the area, a gate style of closure should be considered in lieu of a barricade closure.

Type 4 Object Markers (End of Road Markers)

Where a road has been completely obliterated such that it no longer could be construed as a road or has never had the appearance of a road, red Type 4 OM's should be installed across the roadway. A minimum of 3 assemblies should be installed on a 20' wide road top. An additional sign assembly should be installed per every 5' of width of road top. For added emphasis, additional signs can be mounted on each assembly; however, Traffic Safety Signing Projects will only pay for one sign per assembly.

All gates across roadways shall have Type 4 OM's attached to the gate as well as proper advance warning signs installed of the road being blocked.

DELINEATION

Delineators

The Consultant shall include delineation notes and layout details within the plans and shall add a table showing per route delineation to the plan notes to provide any further detail to the Contractor to be able to install. No delineation is to be installed on Minimum Maintenance Roads. General rule of thumb of having visibility of at least 3 delineators on the same side of roadway at all times should be used to adjust delineator spacing up to the maximum distances specified. When normal spacing is interrupted by structures, crossroads, or ramps, delineators falling within such areas may be moved in either direction a distance not exceeding one-quarter of the standard spacing. Delineators still falling within such areas should be eliminated. Standard delineation shall be back-to-back installations except on one-way roadways.

One Back-to-Back blue reflector may be left in-place at a private approach. Blue delineators shall not be used to mark county/township roads or field entrances. Installation of new blue delineators will not be addressed with these Traffic Safety Signing Projects, however, if additional blue delineators exists then the Consultant shall identify and include their removal within the plans as incidental work for the Contractor. Red reflectors placed illegally on right of way by property owners shall be noted by Consultant and removed by the Contractor via plan note.

Intersection Delineation: Type IV delineators (4" round) shall be installed on all radii of intersecting roads in which the individual radius or a combination radius is greater than or equal to 75' and also has stop/yield control existing or proposed. Refer to Special Detail L30 (1&2 of 2). At all other intersections that have stop/yield, or large arrows, one (1) Type IV delineator (4" round) shall be installed on each sign assembly.

Guardrail Delineation: Where guardrail is present, guardrail delineation shall be installed as per Standard Plate 632.40 (1-4 of 4).

Hazard Delineation: Any non-recoverable slope, non-transverable slope or where some other hazard is located within the clear zone and is not protected by guardrail shall have standard delineators installed at a maximum of 200' spacing along the hazard. This requirement may be waived if no fixed object exists and the elevation difference between bottom of ditch and top of road does not exceed five (5) feet.

Curve Delineation: Delineators shall be installed on the outside of each curve with the degree of curve greater than 2.5 degrees and/or having a radius of less than 2300', or where obstructions that block the line of sight along a curve less than 1,584 feet long. The spacing along the outside radius of horizontal curves and for three spaces in advance and for three spaces beyond the curve is given in the following table:

Max. Spacing for Delineators on Outside Radius of Horizontal Curves with Degree of Curvature Greater than 2.5 Degrees and/or Radius Less than 2300 Feet (Distance in Feet Rounded to the Nearest 5 Feet)

Radius Of Curve	Spacing On Curve	Spacing in Advance & Beyond Curve (in feet)		
		1st	2nd	3rd
50	20	40	65	125
150	30	60	90	180
250	40	85	125	250
300	50	95	145	290
400	55	110	170	300
500	65	125	190	300
600	70	140	210	300
700	75	150	230	300
800	80	165	245	300
900	85	175	260	300
1000	90	185	275	300

Spacing for specific radii not shown may be interpolated from table or computed from the formula $S = 3\sqrt{(R-50)}$. The minimum spacing should be 20 feet. The spacing on curves should not exceed 300 feet. The spacing of the first delineator approaching a curve is $2xS$, the second is $3xS$ and the third is $6xS$ but not to exceed 300 feet. If a spacing less than 300 feet is used approaching the curve, the distance shown above should be adjusted accordingly.

The requirement for delineation along the curve is not required where W1-8 (Chevron) signs are installed; however, the delineators on the approach and departure to the curve are still required.

Structure Delineation: Bridges or culverts (meeting the federal definition of a bridge) that the end falls within the clear zone and are not protected by guardrail shall have delineation installed and shall consist of a minimum of four (back-to-back) delineators on each side of the roadway spaced 50 feet apart. The delineators shall be located in a straight line beginning a minimum of 200 feet from the corner of the bridge and at the normal offset distance outside the shoulder edge and tapering to the inside edge of the obstruction.

Full Delineation: Full standard delineation includes all the above referenced delineation plus delineators on tangent sections and inside radius of curves. Full delineation is recommended to be installed on all improved two-lane (or greater) through roads (gravel/AC/PCCP surfaced with minimum of 20' width and a 4' shoulder) with an ADT of 50 or greater. Quantity shall be based on back-to-back delineation at a standard spacing of 528 feet in tangent sections on the same side of roadway and staggered placement with those on the opposite side of the road in those tangents. The spacing for delineators on the inside radius of curves shall also be 528 feet. If the local entity has objections to this recommendation, the Consultant is to refer that objection to the DOT for discussion.

Object Markers

Type 2 OM's

Type 2 Object Markers shall be installed at guardrail end terminals. If box culvert, pipe culvert or cattle pass ends are outside the shoulder area do the following:

- If the ends are within the clear zone recovery area recommended in the SDDOT Local Roads Manual, measure the longitudinal opening width(s) (opening plus wall thickness) at the clear zone boundary or at the end of the pipe-end treatment(s), whichever is applicable and for box culvert, pipe culvert or cattle pass ends with outside dimensions:
 - smaller than 30 inches may install 1 yellow steel fence post on the upstream traffic-flow side of the pipe at the discretion of the local road authority. (Note: the cost for this must be paid by the local road authority - 100% non-participating.)
 - 30 inches or larger but less than 60 inches install 1 Type 2 double-sided marker on the upstream traffic-flow side of the pipe or box opening.
 - for multiple pipes with a combined width of less than 60 inches, also install 1 Type 2 double-sided marker on the upstream traffic-flow side of the pipe.
- For all box culverts, pipe culverts or multiple pipes, or cattle pass ends with outside dimensions greater than or equal to 60 inches, install 4 single-sided posts, 1 at each of the four corners of the structure facing away from the structure.
- For appurtenances smaller than 60 inches in diameter and outside the clear zone, mark with a single marker such as a steel post painted yellow at the discretion of the local road authority. (Note: the cost for this must be paid by the local road authority - 100% non-participating.)

Type 2 object markers shall conform to Standard Specification Section 982. Payment for the Type 2 object markers shall be in conformance with Standard Specification 632.5C. Payment for yellow steel posts shall be per each as Pipe End Marker Post and shall be 100% non-participating.

The inner edge of the Type 2 object marker shall be installed at the opening of the pipe end section, box culvert, or cattle pass. Refer to Standard Plates 632.01, 632.10 and 632.40 for the placement of Type 2 object markers and post lengths.

Type 3 OM's

Type 3 Object Markers shall be installed if box culvert, pipe culvert or cattle pass ends are inside the shoulder break point and are not protected by guardrail, install a Type 3 object marker at the opening on both sides of the road, with the inside edge of the marker in line with the inner edge of the opening. No Type 3 object markers on bridge ends will be used when guardrail end terminal object markers are used or if the bridge width exceeds the width of road and shoulder area.

All Type 3 OM's installed with these Traffic Safety Projects shall consist of a flexible marker style design and shall conform to standard notes as provided to the Consultant.

Type 4 OM's

See Road Closures for Type 4 Object Markers.

Object Marker Mounting Height

To mark appurtenances equal to or larger than 30 inches in diameter, mount object markers at the following heights in these circumstances:

- To mark objects in the roadway or 8 feet or less from the shoulder or curb, make the mounting height to the bottom of the object marker or top of the steel post at 4 feet above the roadway with the following exception; if the overall width perpendicular to the centerline of the roadway is 40' or less between two object markers, the height of the markers shall be adjusted such that the top of the marker or post does not exceed 3' above the edge of the driving surface.
- To mark objects more than 8 feet from the shoulder or curb, make the mounting height to the bottom of the object marker or top of steel post at 4 feet above the ground measured from the base of the post.

GUIDE SIGNS

Design of guide signs shall be as per the MUTCD and Highway Signs Manual (HSM). A layout detail for all guide signs, with exception (see below reference the D3-1 street name sign), shall be included in the plans. Additionally, a plan note shall be used requiring that shop drawings be submitted and approved prior to manufacturing of any special sign. The note should specify an email address of the project designer and the Region Traffic Engineer and the assigned DOT project manager for the submittal. Email addresses can be obtained from the DOT project manager. Formal approval shall be the responsibility of the DOT.

D3-1 Street Name Signs: Sign design shall include a border and conform to the HSM layout requirements. Street name sign sizes shall be estimated for the purpose of plan preparation and quantities based on the following guidelines:

- Local roads with speed limit of 25 mph or less and post-mounted locations:
 - shall utilize a 4" initial upper-case legend with a 3" lower case on a 9" sign blank.
 - Width of the 9" sign shall be estimated based on the following table:

Street Name (example)	Characters (including spaces)	Hwy Font	Plate Length (inches)
SD 8	4	D	24
27 St	5	D	24
270 St	6	D	30
2701 St	7	D	30
27002 St	8	D	30
270003 St	9	D	36
2700004 St	10	C	36
27000005 St	11	C	36
270000006 St	12	C	36
2700000007 St	13	B	36
27000000008 St	14	B	36
270000000009 St	15	B	42
Hidden Valley Rd	16	B	42

-
- All 2-lane roadways with post-mounted locations shall utilize a 6" initial upper-case legend with a 4.5" lower case on a 12" high sign blank.
- Multi-lane roadways with speeds greater than 40 mph and post-mounted locations shall utilize an 8" initial upper-case legend with a 6" lower case on a 12" high sign blank.
- Multi-lane roadways with speeds 40 mph or less and post-mounted locations shall utilize a 6" initial upper-case legend with a 4.5" lower case on a 12" high sign blank.
- Width of the 12" high sign shall be estimated based on the following table:

Street Name (example)	Characters (including spaces)	Hwy Font	Plate Length (inches)
SD 8	4	D	30
27 St	5	D	30
270 St	6	D	36
2701 St	7	D	36
27002 St	8	D	42
270003 St	9	D	48
2700004 St	10	D	48
27000005 St	11	D	54
270000006 St	12	C	54
2700000007 St	13	B	48
27000000008 St	14	B	48
270000000009 St	15	B	54

Hidden Valley Rd	16	B	54
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- Street names that exceed the number of characters allowed in the table above shall be laid out as a multi-line sign and detail shall be included in the plans. General design criteria should be maintained with use of the Highway B Font as a minimum stroke width and limiting the width of the sign to 54 inches.

SIGN ASSEMBLY AND INSPECTION

Installation of the support shall be accomplished by driving the post into the soil or drilling and backfilling after placement of the post. The depth to be drilled will depend on soil conditions and type of post being installed. Square tubular posts bases shall be placed to a depth of 4 feet. The breakaway plane of the post shall not exceed 4" in height above the ground measured from any point within a 60" radius of the post.

Vertical plumb of the support should be checked during placement and/or backfill of the sign base. Appropriate measures shall be taken to ensure proper tamping of backfill material. Mound up soil around the base (not to exceed 4" in depth) to help moisture run off away from the base and minimize erosion.

Signs shall not be overlapped. A 2-inch separation should be left between signs and a 4-inch separation between set of signs. Cardinal direction signs (if used) should be in proper order as shown in this manual and have matching colors. **Hardware should not be over tightened.**

Signs of 30" and smaller are predrilled. New signs 36" and larger are not and must be drilled. **Care should be taken to not scratch the new sign.** Drilling should be on even inches to place the signs on metal predrilled supports. Plastic washer shall be used between a metal washer and the reflective sheeting.

Project Inspection

During the first week of construction, each installed device shall be inspected for full compliance. Subsequent weekly inspections shall be performed to document full compliance on 15% or more of devices installed during that week. A random selection of devices should be made to ensure a good representation of the work accomplished.

Documentation shall include the quantities and dimensions of each pay item installed, and the location and dates of installation. The Contractor may provide this information during the project for progress pay estimate purposes. Final pay quantities will be determined by the information provided in the As-Built Survey.

As-Built Survey

The Contractor shall provide an as-built inventory of all installed devices to the DOT Area Office within 30 calendar days of the completion of the field work. The inventory shall be delivered in electronic spreadsheet format and shall contain the following information:

1. Description of Device (include the MUTCD Sign Code)
2. Description of Support(s)
3. Date Installed
4. Location of Device (not required for white delineator items)
5. Owner of Device (County, Township, City, etc.)

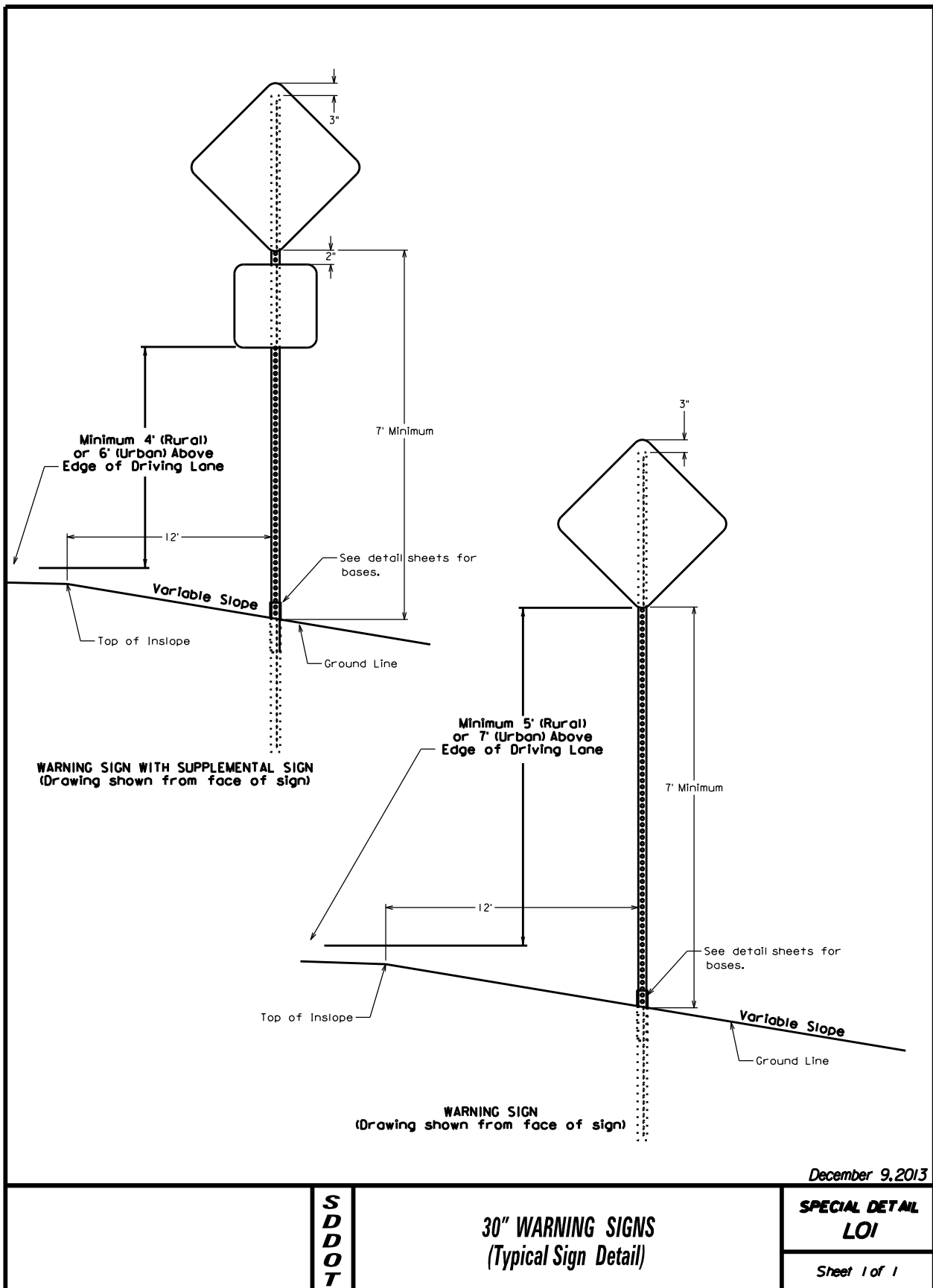
The device location shall be provided in GPS format to an accuracy of 10 feet +/- . Elevations are not required. The DOT Area Office will review the inventory and provide a copy to the Owner(s) if requested

All costs for this work shall be incidental to the contract lump sum price for "As-Built Survey". No separate payment will be made for As-Built Survey due to increases in the quantities of devices installed.

Staking

The Contractor shall stake all device locations prior to installation. The locations of the devices as noted in the plans are approximate. The lateral distance from the roadway and the height of each device shall be established by the Contractor in accordance with the Standard Plates and the current MUTCD.

All costs for this work shall be incidental to the contract unit price for the various signing bid items. No separate payment will be made for staking due to increases in the quantities of devices installed.



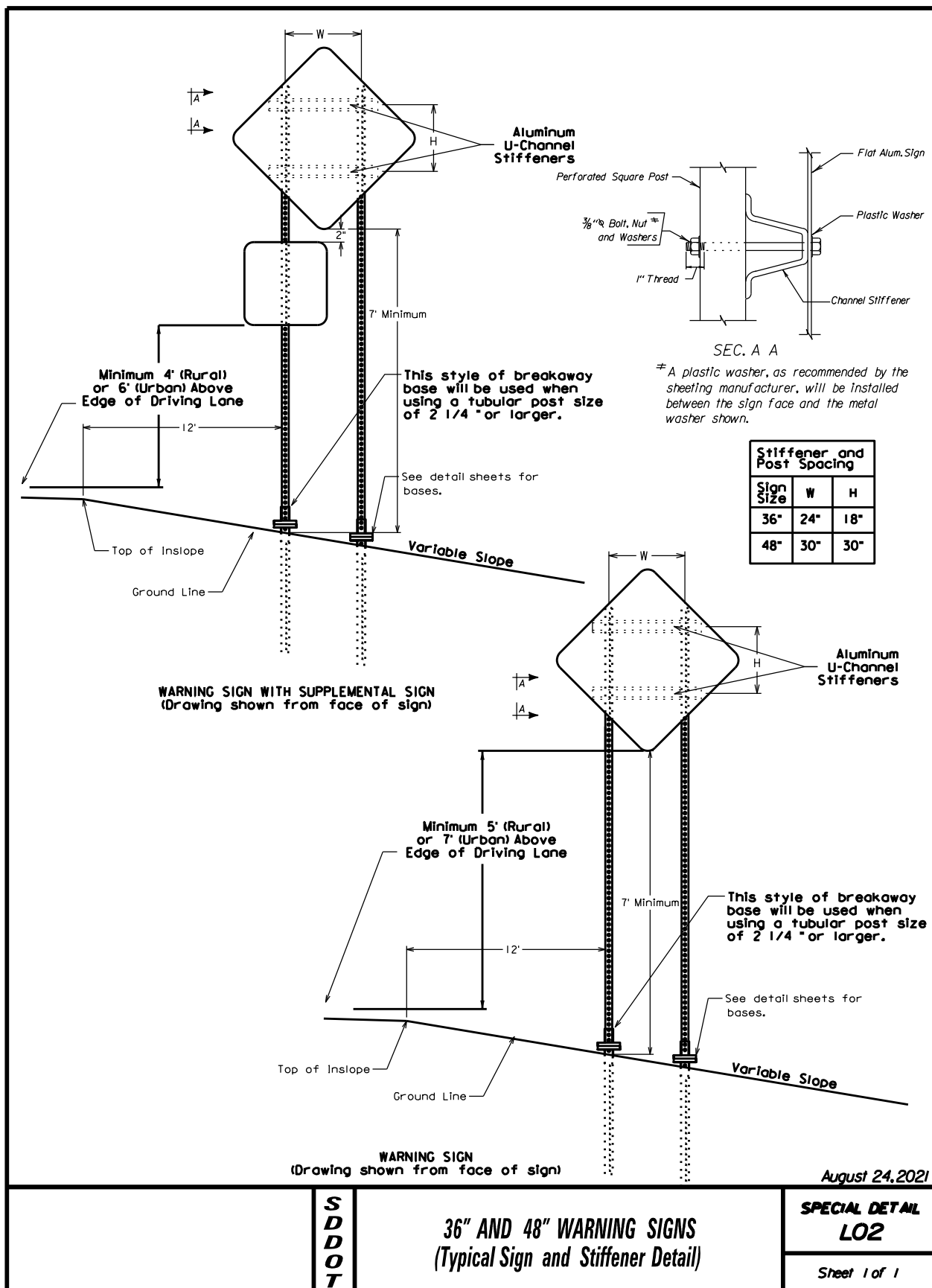
December 9, 2013

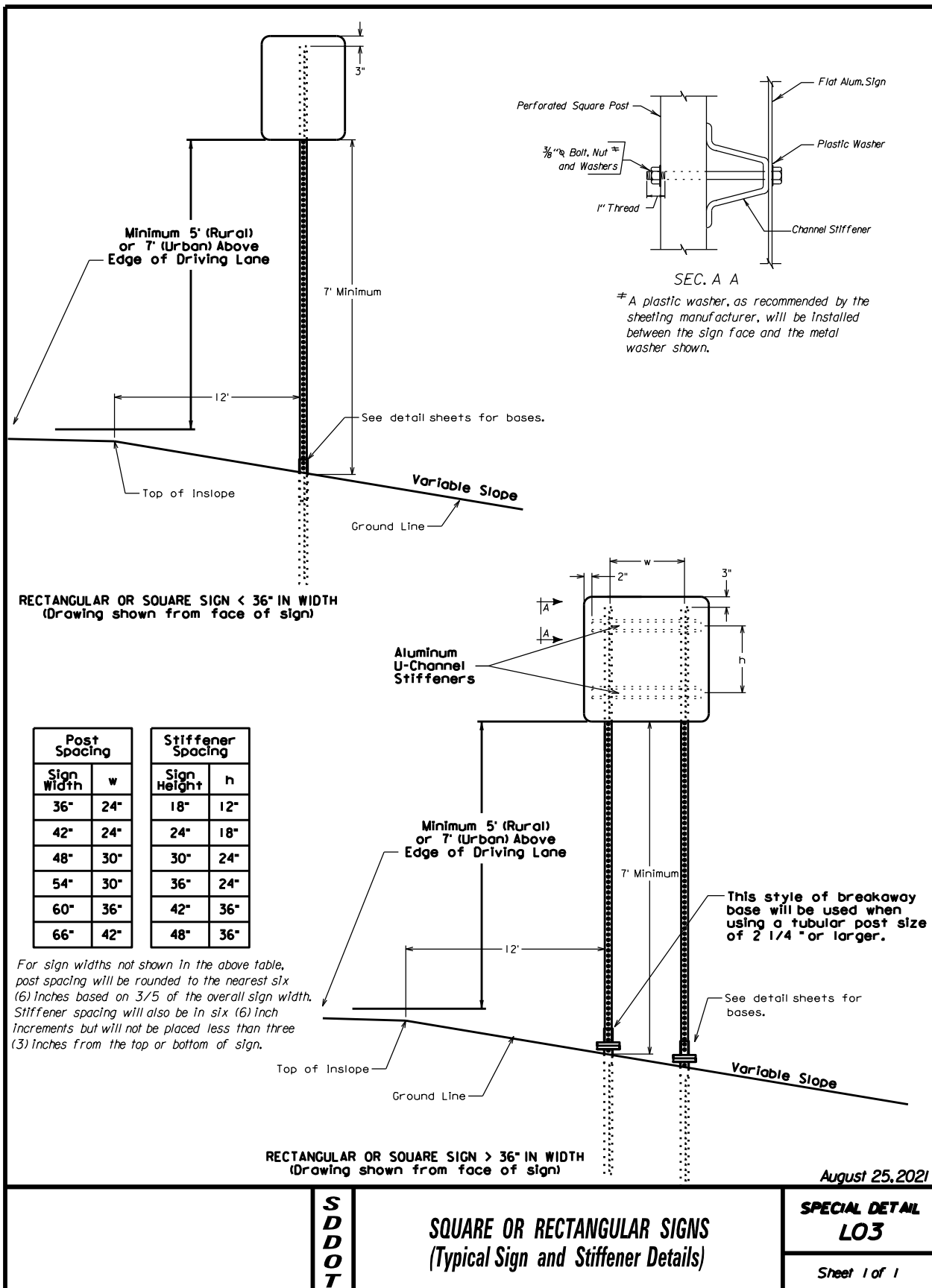
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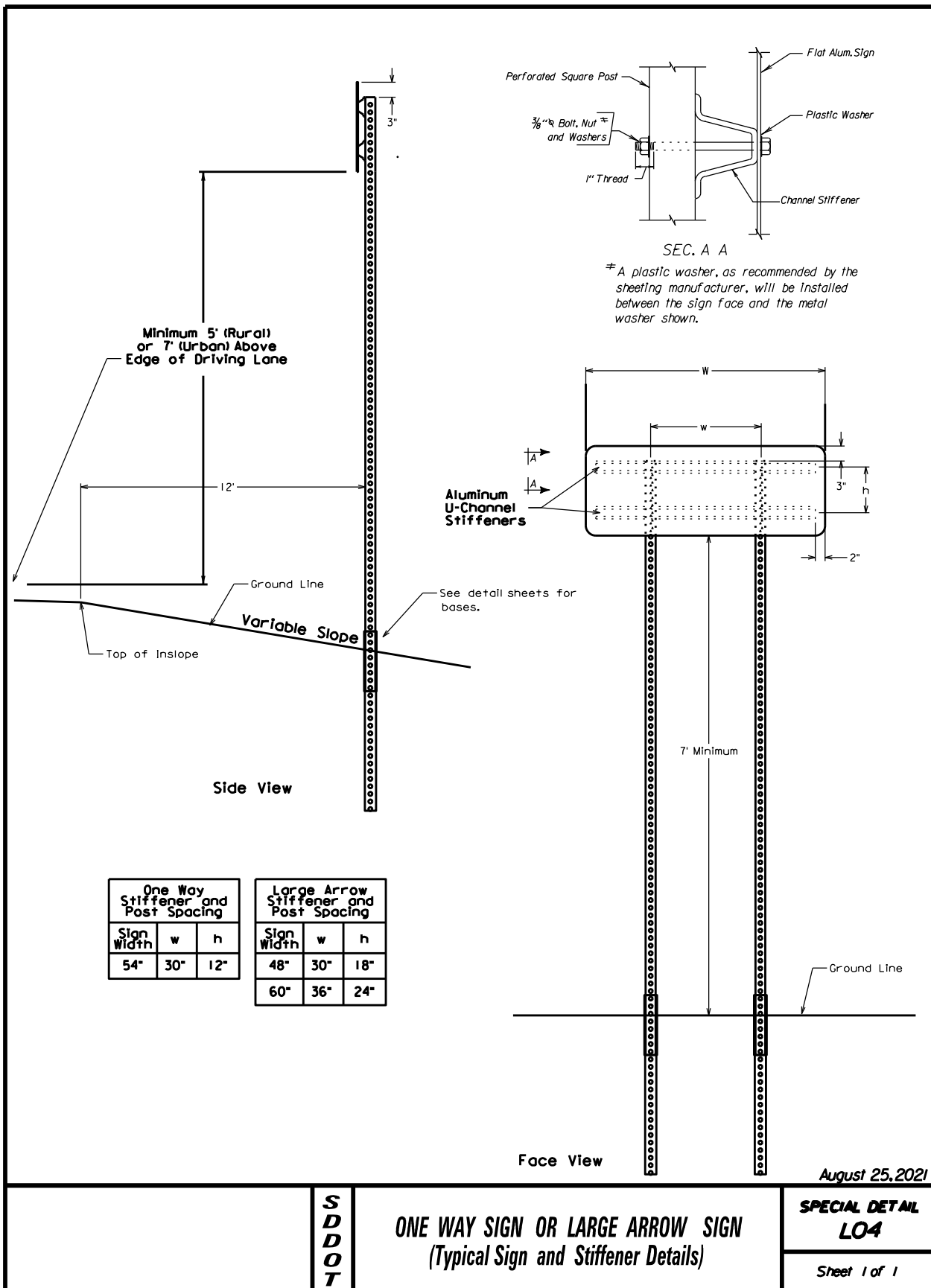
30" WARNING SIGNS
(Typical Sign Detail)

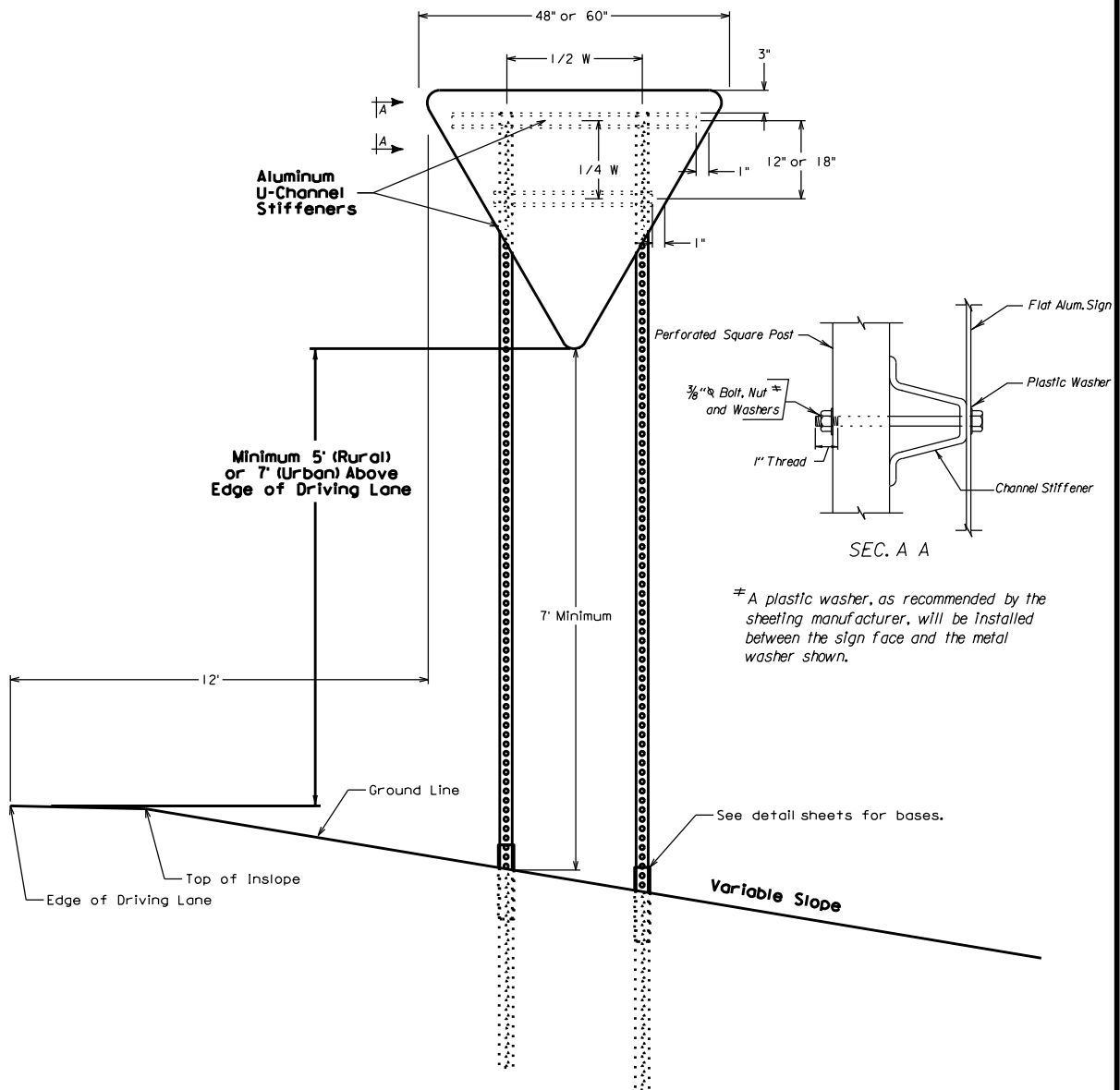
SPECIAL DETAIL
LOI

Sheet 1 of 1









(Drawing shown from face of sign)

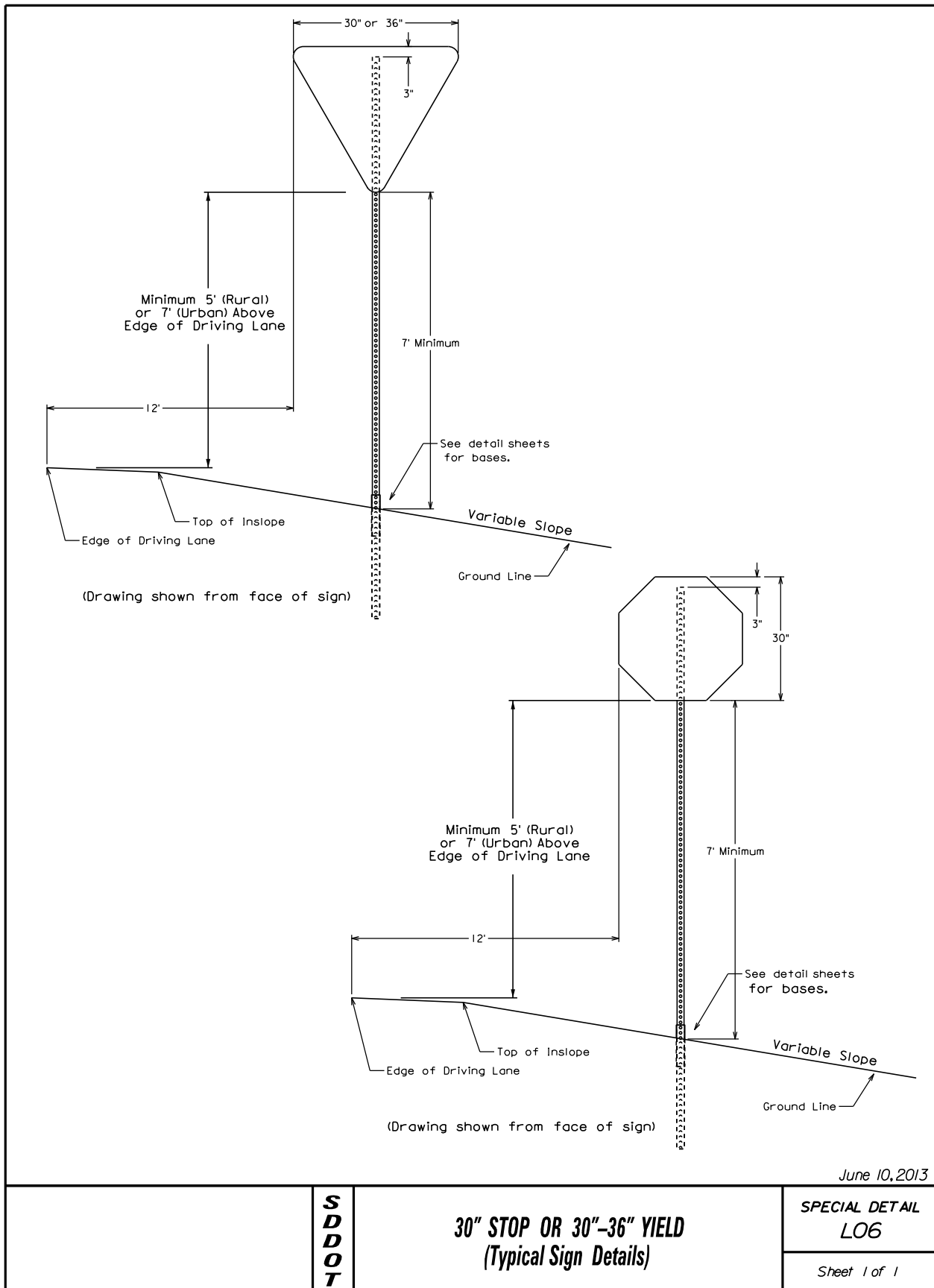
August 25, 2021

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48" OR 60" YIELD SIGN
(Typical Sign and Stiffener Details)

SPECIAL DETAIL
LO5

Sheet 1 of 1

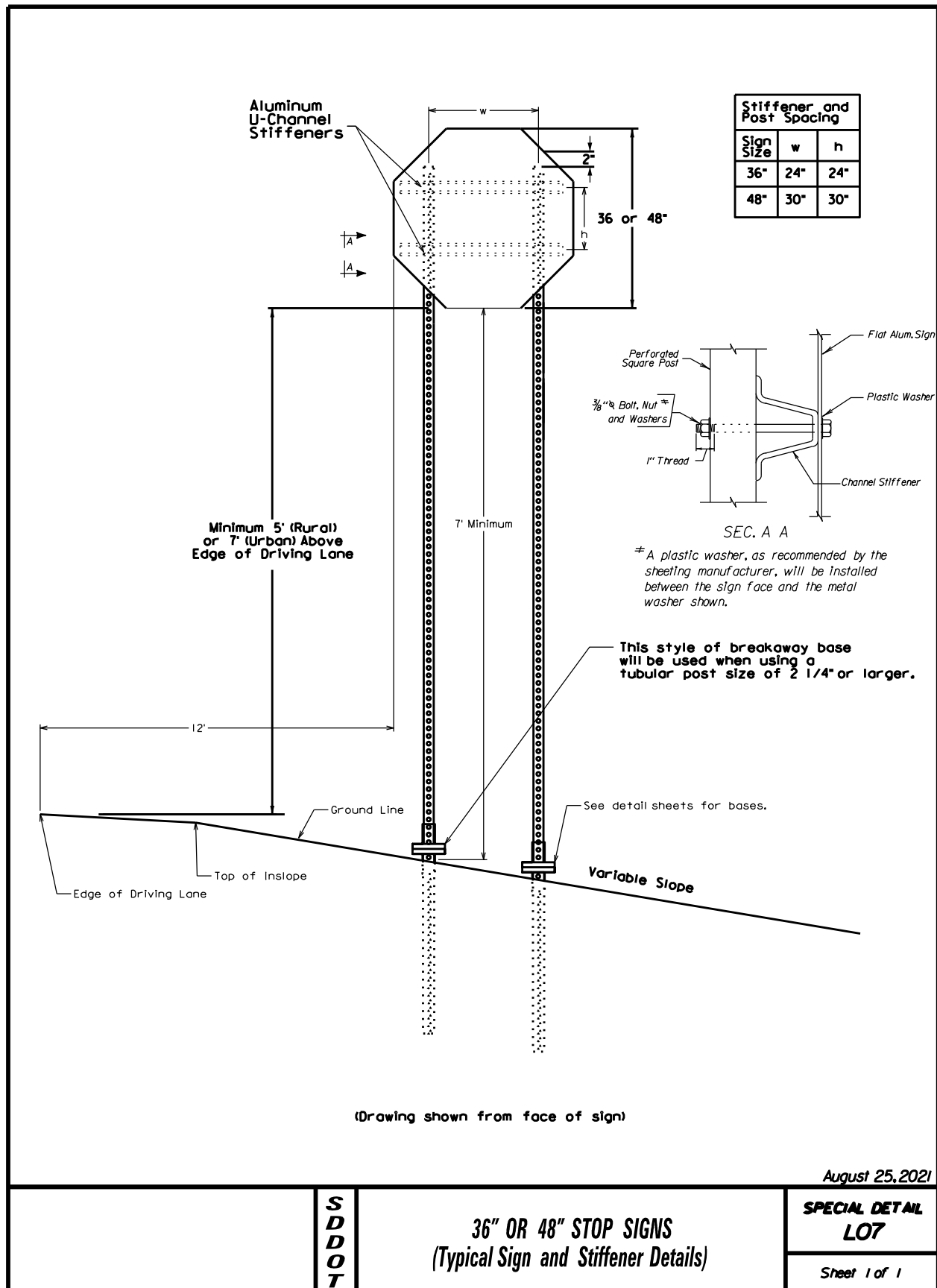


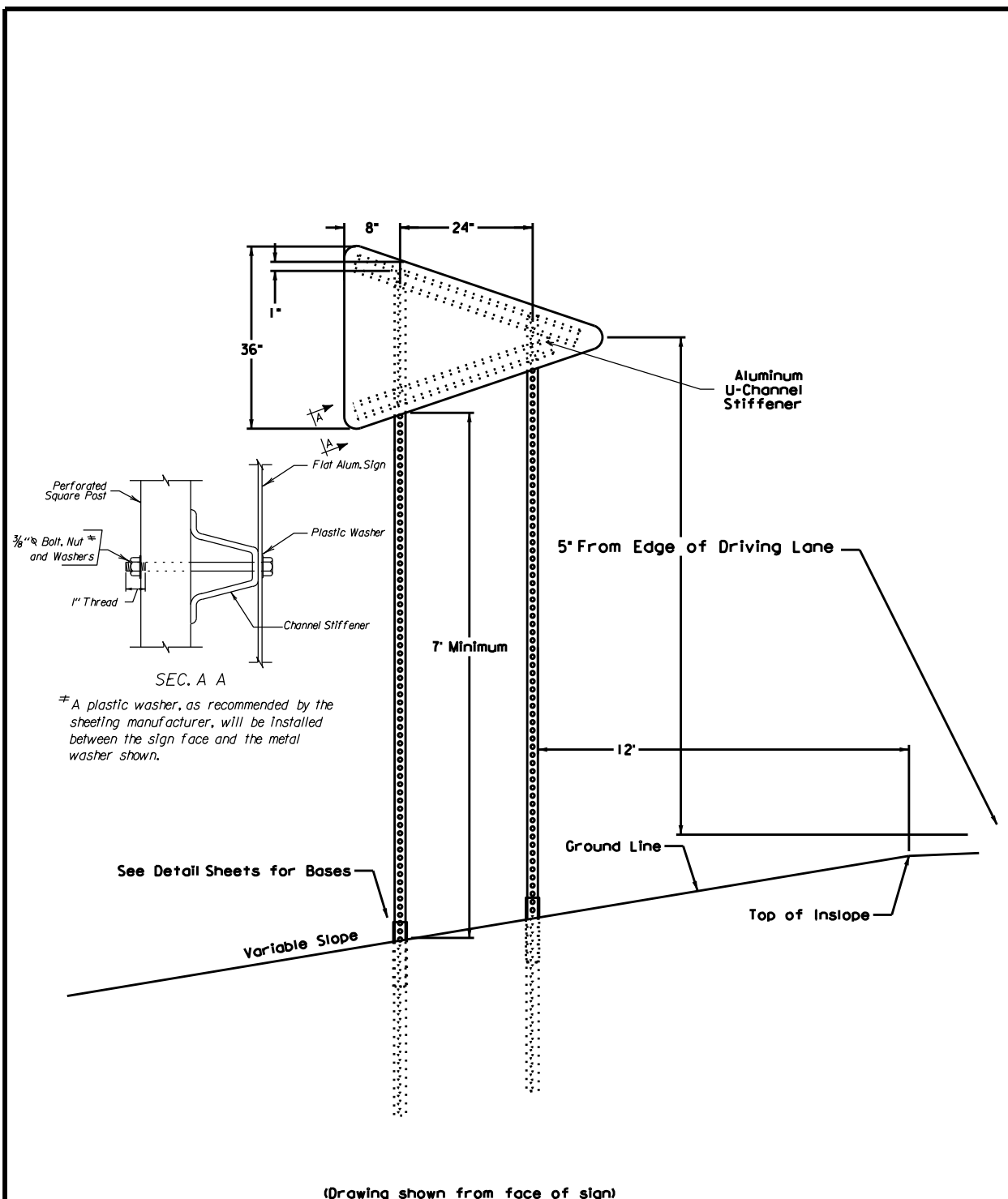
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30" STOP OR 30"-36" YIELD
(Typical Sign Details)

SPECIAL DETAIL
LO6

Sheet 1 of 1





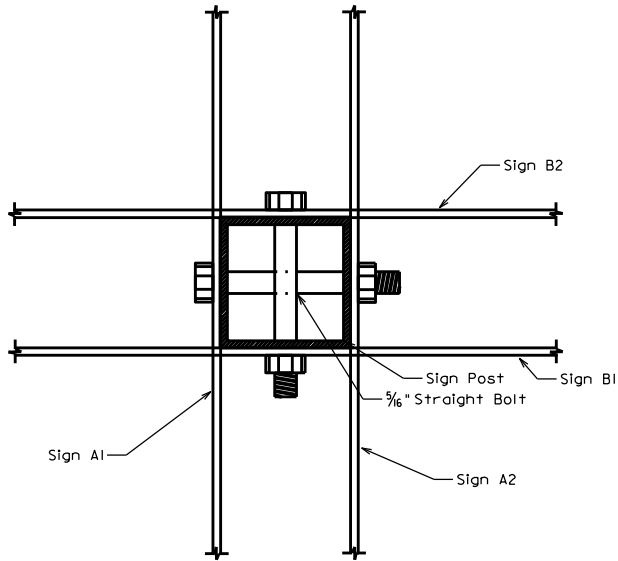
August 25, 2021

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NO PASS ZONE PENNANT
(Typical Sign and Stiffener Details)

SPECIAL DETAIL
LO8

Sheet 1 of 1

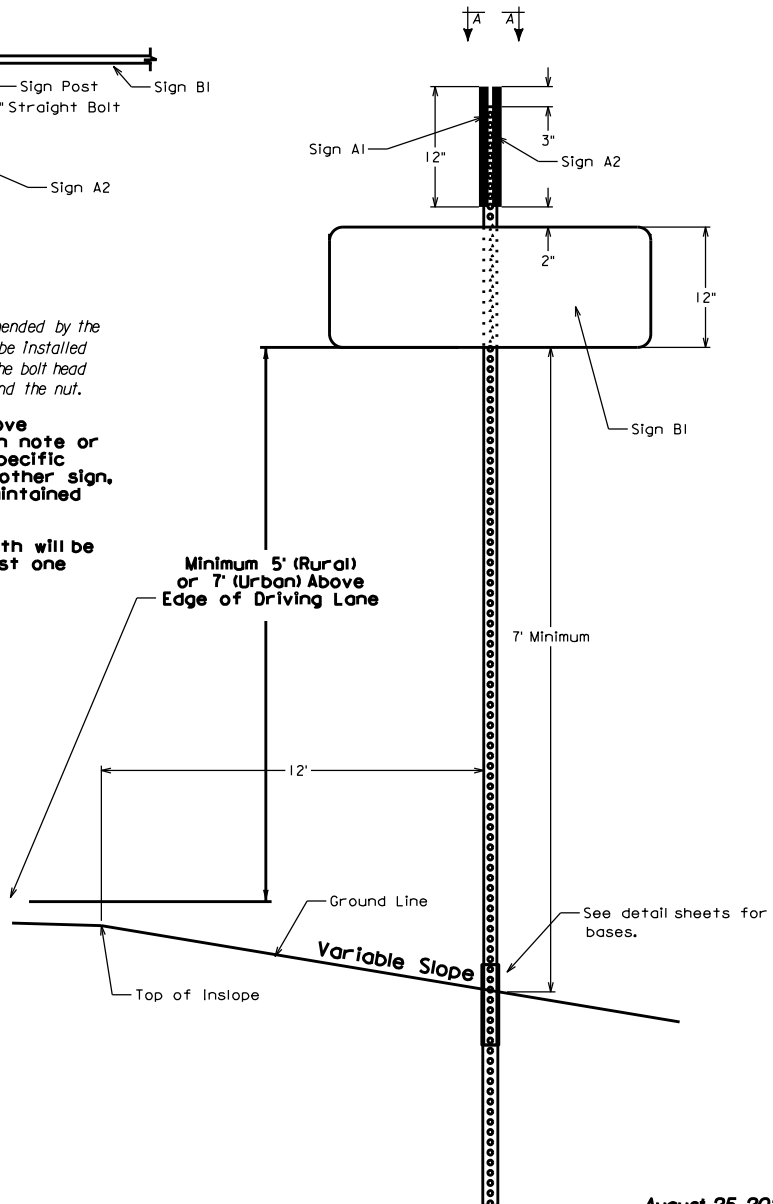


SEC. A-A

*A plastic washer, as recommended by the sheeting manufacturer, will be installed between the sign face and the bolt head and also between the sign and the nut.

NOTE: Sign assembly may be mounted above Yield or Stop sign - refer to plan note or Table of Permanent Signing for specific locations. When mounting above another sign, 2" of vertical clearance will be maintained between signs.

Back-to-back signs over 24" in width will be bolted to each other with at least one connector on each end of sign.



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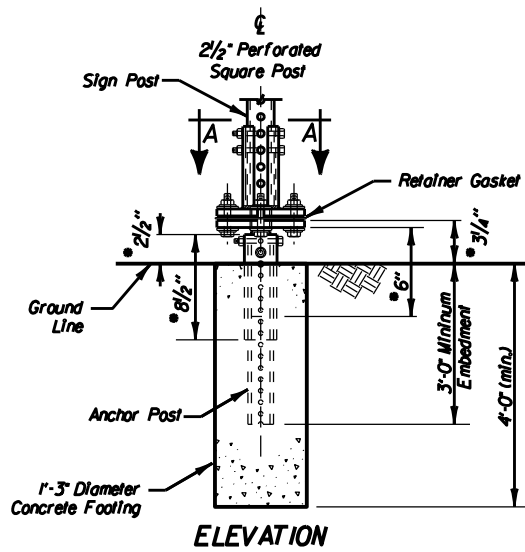
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STREET NAME SIGN
(Typical Sign and Stiffener Details)

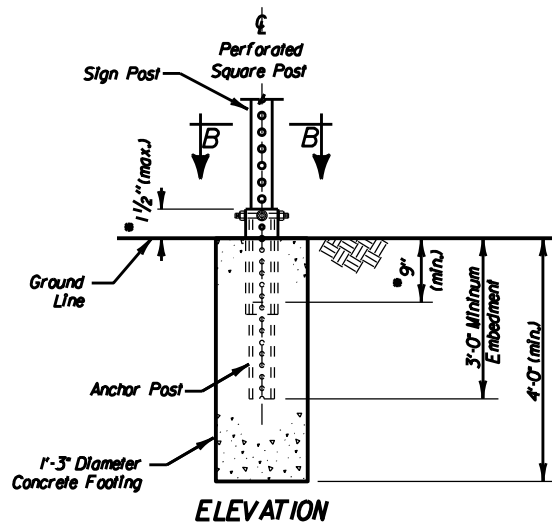
SPECIAL DETAIL
L10

Sheet 1 of 1

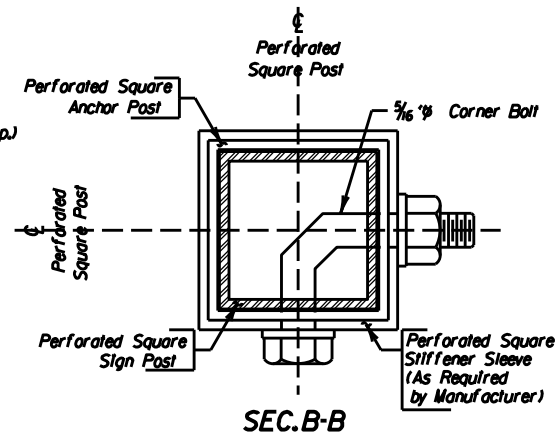
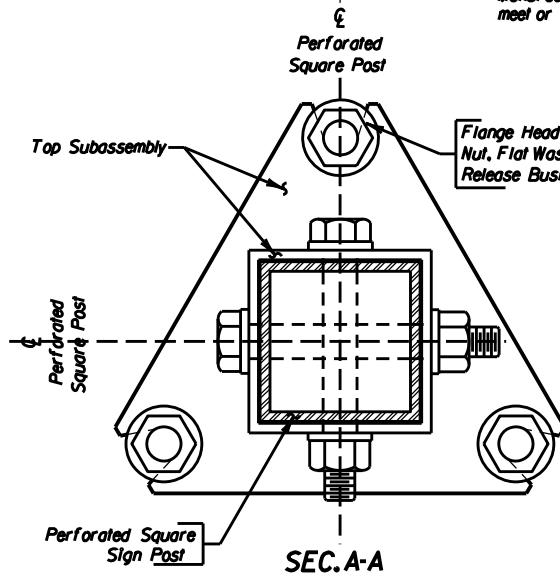
SLIP BASE DESIGN



STUB POST DESIGN

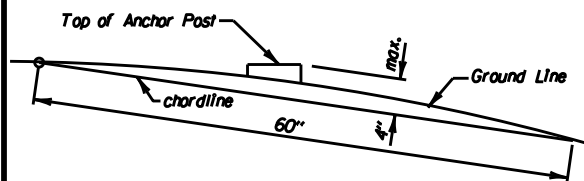


* Dimensions shown may vary by Manufacturer. The Contractor will use Manufacturer recommended assembly parts and procedures. Sign installations must meet or exceed NCHRP 350 or MASH breakaway requirements and be FHWA approved.



GENERAL NOTES-

1. Design Specification: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Latest Edition.
2. The manufacturer will provide certification that the posts and hardware furnished have essentially the same chemistry, mechanical properties and geometry as that used in the FHWA tests, and that it will meet the FHWA change in velocity requirements.
3. The manufacturer will also provide certification that the breakaway system furnished will develop the full shear and bending yield strength of the sign post section being spliced.
4. All posts will be galvanized in accordance with ASTM A653, Des. G-90.
5. All hardware will be galvanized in accordance with ASTM A153.



BREAKAWAY SUPPORT STUB CLEARANCE DIAGRAM

NOTE: The top of anchor post will NOT extend more than 4" max.

August 25, 2021

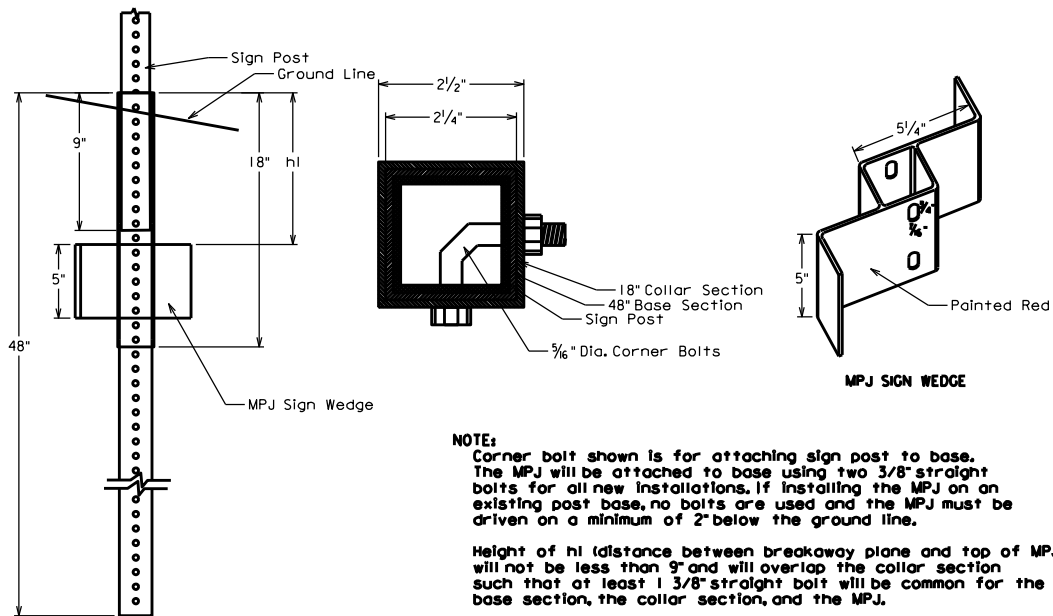
SD
DOT

BREAKAWAY SIGN SUPPORTS Perforated Steel Post w/Concrete Footings

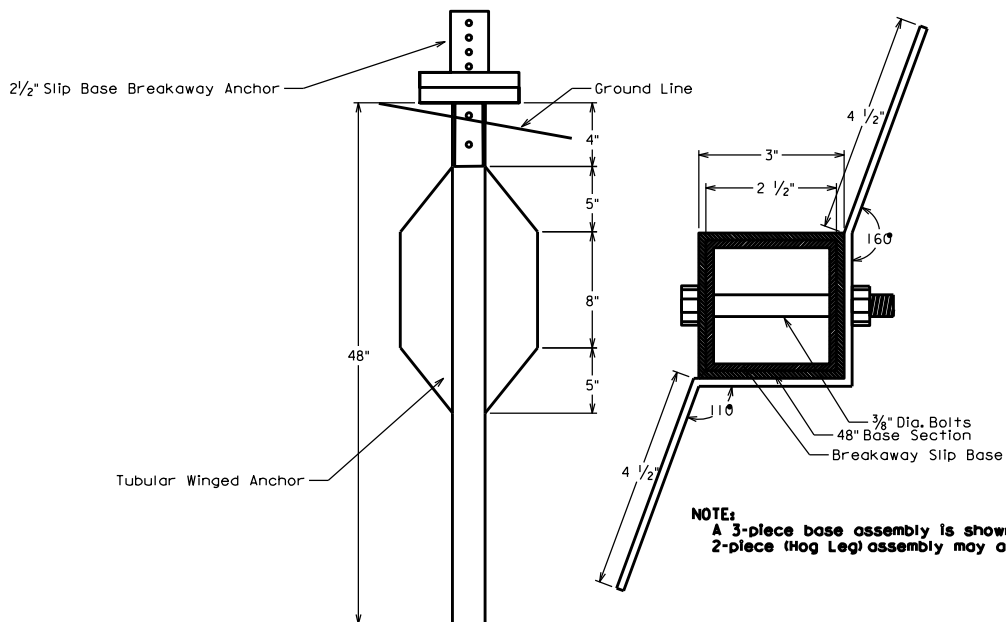
**SPECIAL DETAIL
L20**

Sheet 1 of 1

SIGN BASE DETAILS FOR A 2" SIGN POST



SIGN BASE DETAILS FOR A 2 1/2" SIGN POST



August 25, 2021

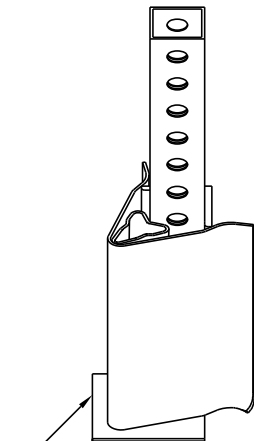
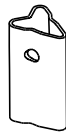
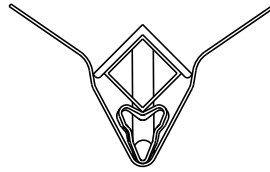
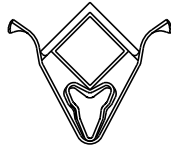
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TUBULAR POST BASE DETAILS
 (Typical Soil Installation)

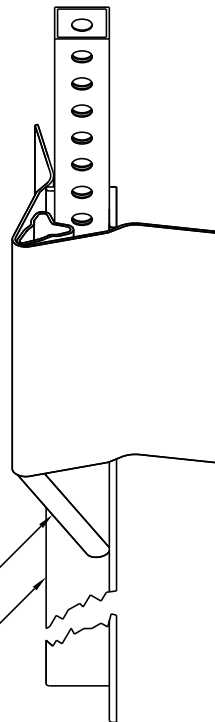
SPECIAL DETAIL
L21

Sheet 1 of 1

CONCRETE MODEL



OPTIONAL WELDED STEEL BOTTOM
CAP
4" X 4" X .105" [65 x 65 x 5]
PER ASTM A-569
CONCRETE MODELS ONLY
.75 ROUND X 7 [20 ROUND X 175]
STEEL WELDED CLEAN OUT BAR
PER ASTM A-36



48" Base

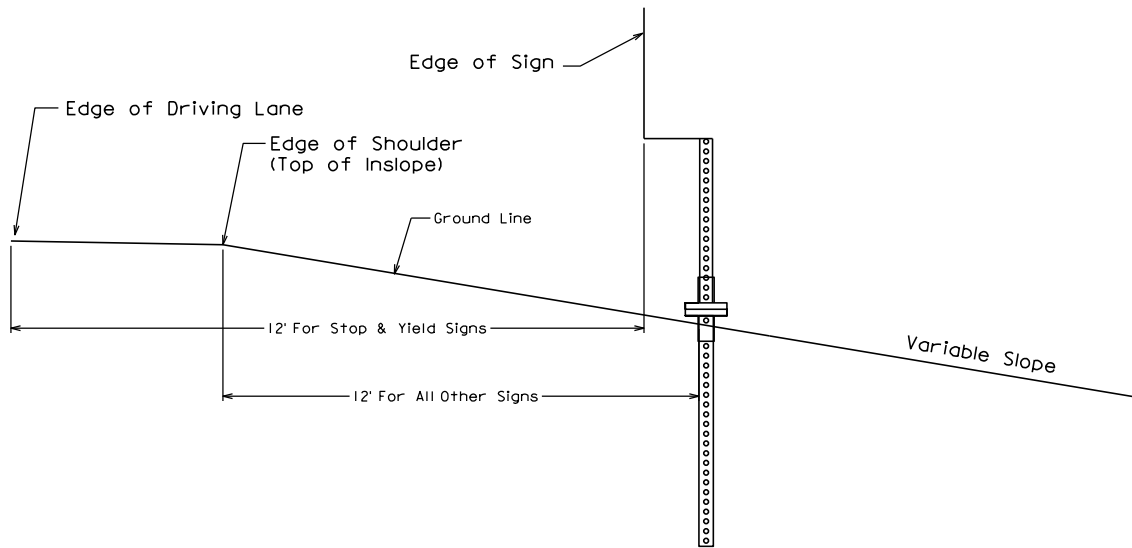
March 1, 2016

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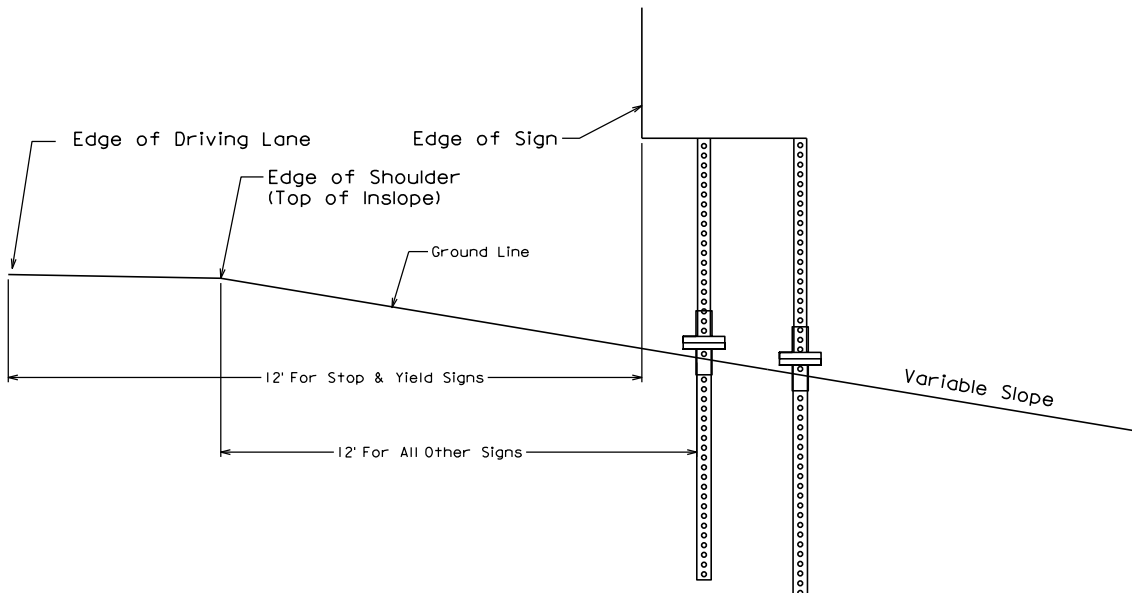
TUBULAR POST BASE DETAILS
(Typical Flush Mount Breakaway Installation)

SPECIAL DETAIL
L22

Sheet 1 of 1



RURAL LOCATION WITH 1 POST
(Drawing shown from face of sign)



RURAL LOCATION WITH 2 POSTS
(Drawing shown from face of sign)

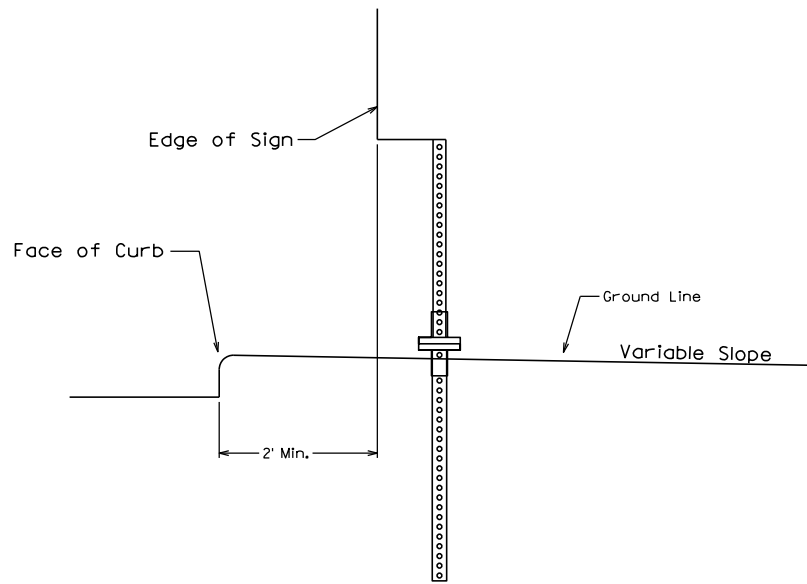
June 10, 2013

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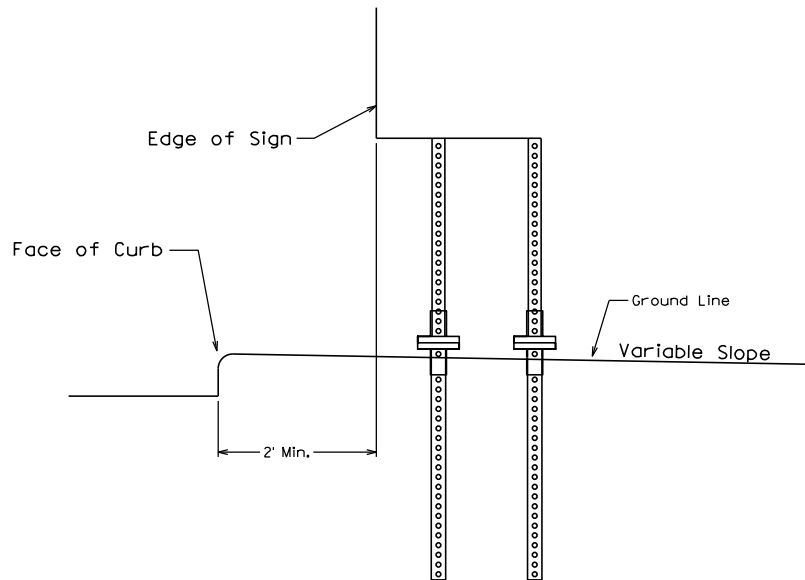
LATERAL OFFSET
(Typical Rural Sign Installations)

SPECIAL DETAIL
L23

Sheet 1 of 1



URBAN LOCATION WITH 1 POST
(Drawing shown from face of sign)



URBAN LOCATION WITH 2 POSTS
(Drawing shown from face of sign)

July 24, 2012

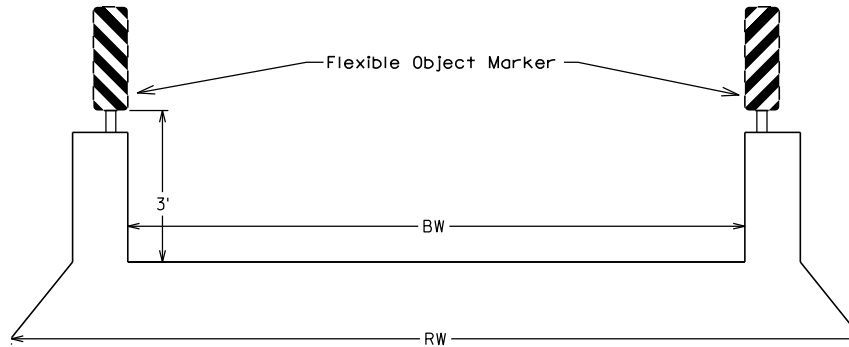
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LATERAL OFFSET
(Typical Urban Sign Installations)

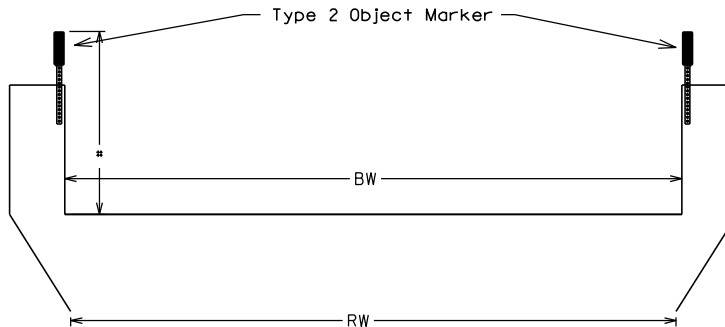
SPECIAL DETAIL
L24

Sheet 1 of 1

BW = Bridge Width
 RW = Road Width
 (Includes Shoulders)



RW > BW and No Guardrail Present**



RW < or = BW and No Guardrail Present**

If BW = or < 40', then # = 3'

If BW > 40', then # = 4'

** If Guardrail is present, refer to Standard Plates 632.40 for installation of Type 2 Object Markers

July 24, 2012

	S D D O T	TYPE 2 & 3 OBJECT MARKERS <i>(Typical Installation Details)</i>	SPECIAL DETAIL L25 Sheet 1 of 1
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4"x4" DELINEATORS

with Type XI reflective sheeting



**Mounting Holes in all Delineators to
be 1/4" diameter**



1.2 lb./ft. flanged
channel post painted
green (delineator post)

(TYPICAL)

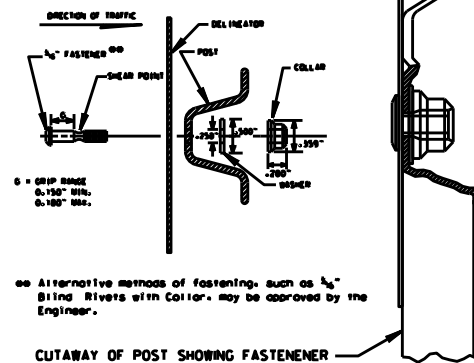
4" TUBULAR DELINEATORS

with Type XI reflective sheeting

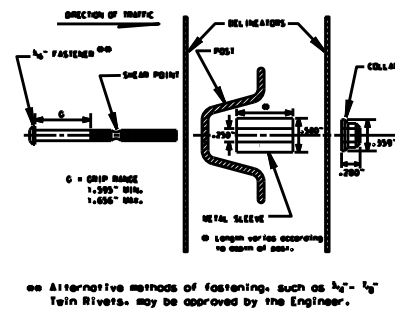


Details shown represents delineator on its own post. When mounted on a sign assembly, the signpost will run through the delineator and top of delineator will be mounted at 4' elevation above the edge of driving lane.

DETAIL FOR SINGLE MOUNTING DELINEATORS ON POST



DETAIL FOR MOUNTING 4" DELINEATORS BACK TO BACK ON POST



August 25, 2021

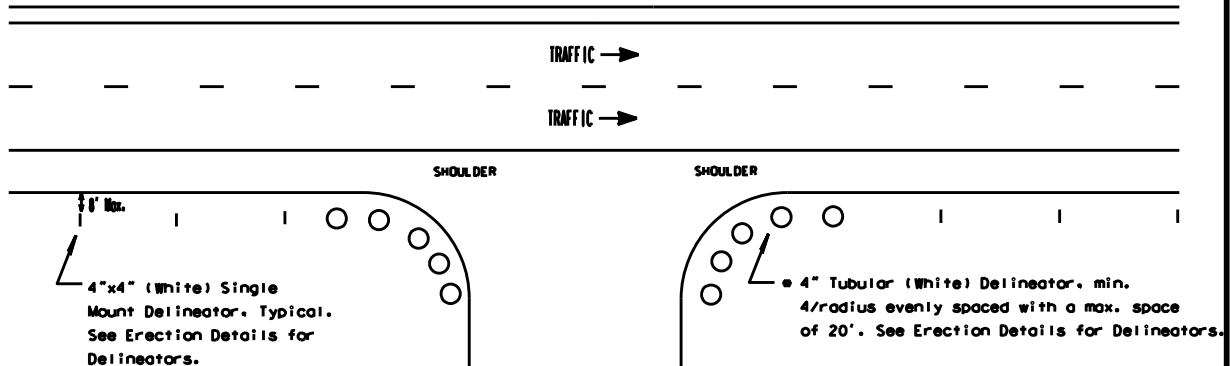
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DELINEATORS ***(Typical Placement and Mounting Details)***

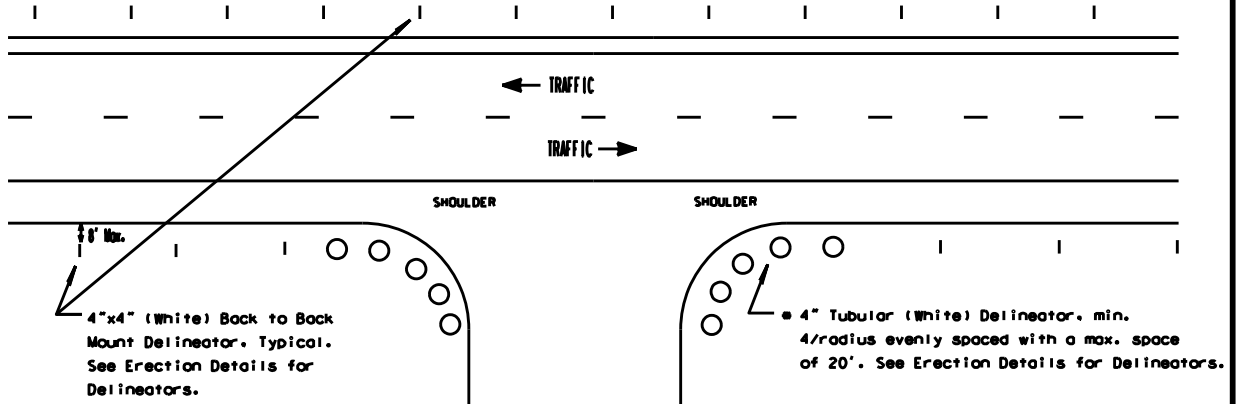
SPECIAL DETAIL
L30

Sheet 1 of 2

SIDE ROAD - ONE-WAY TRAFFIC



SIDE ROAD - TWO-WAY TRAFFIC



- 4" Tubular (White) Delineator installed as shown only on intersections with radius or a combination radius greater than 75' and also has stop/yield control. At all other intersections with stop/yield control, one 4" tubular delineator will be installed on each stop/yield sign assembly and large arrow (Tee-intersections).

August 25, 2021

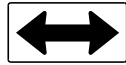
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DELINEATORS (Typical Placement and Mounting Details)

**SPECIAL DETAIL
L30**

Sheet 2 of 2

(A)

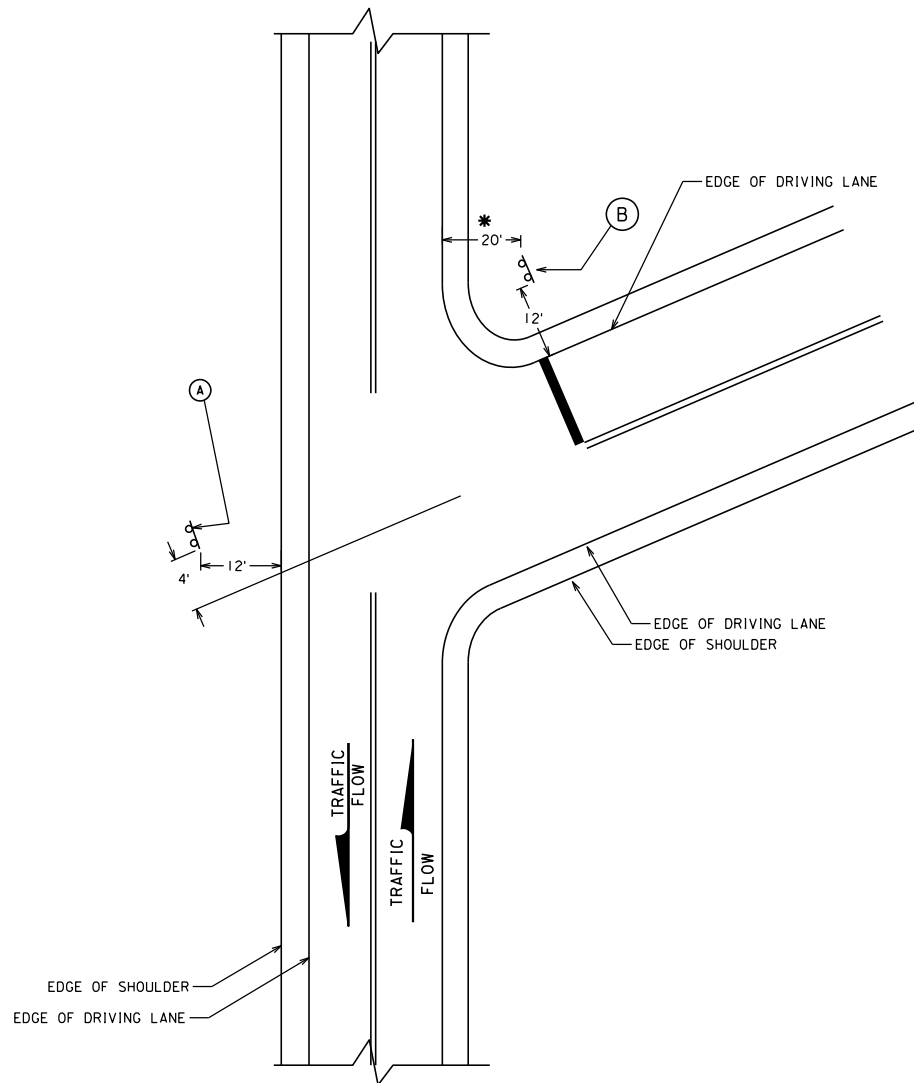


W1-7

(B)



* Variable distance based on radius (max. 50').



June 10, 2013

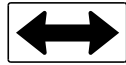
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**TYPICAL SIGN LAYOUT FOR THROUGH
ROADWAYS WITH IMPROVED
SIDEROAD AT ACUTE ANGLE**

**SPECIAL DETAIL
L40**

Sheet 1 of 1

(A)



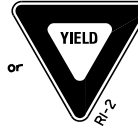
W1-7

(B)

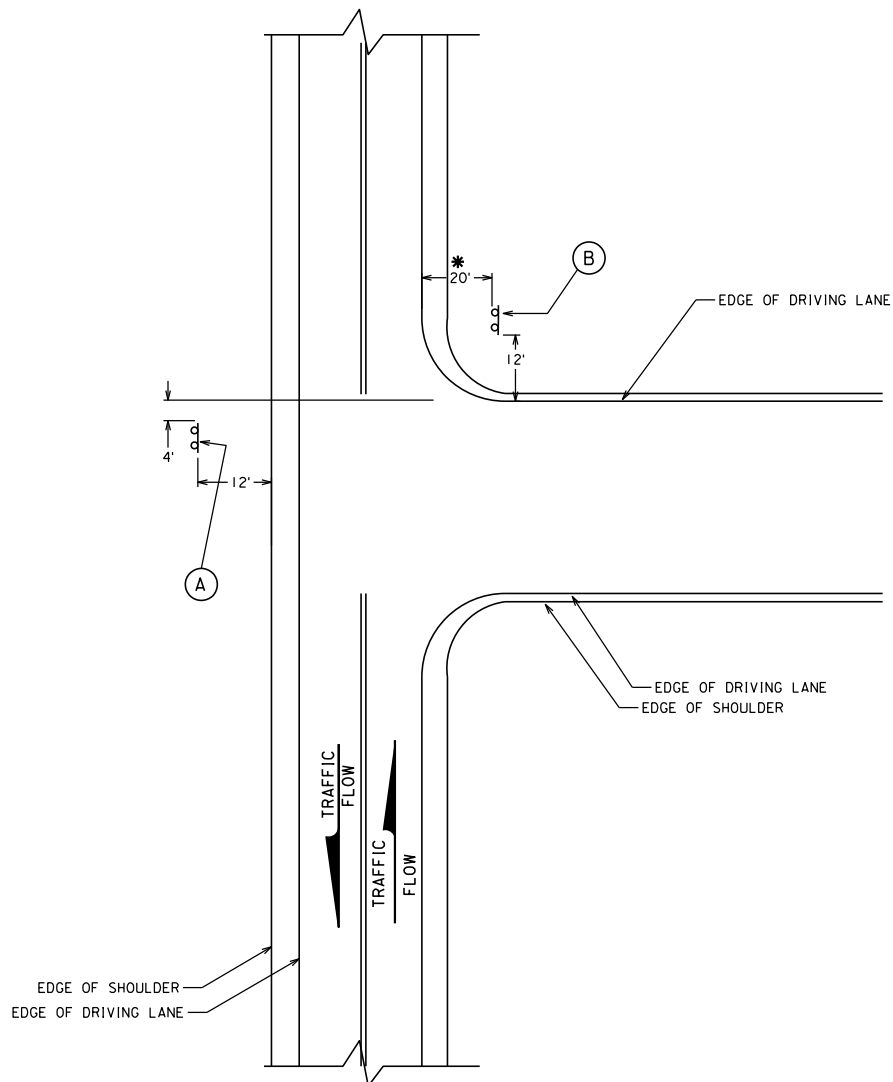
(OPTIONAL)



or



* Variable distance based on radius (max. 50').



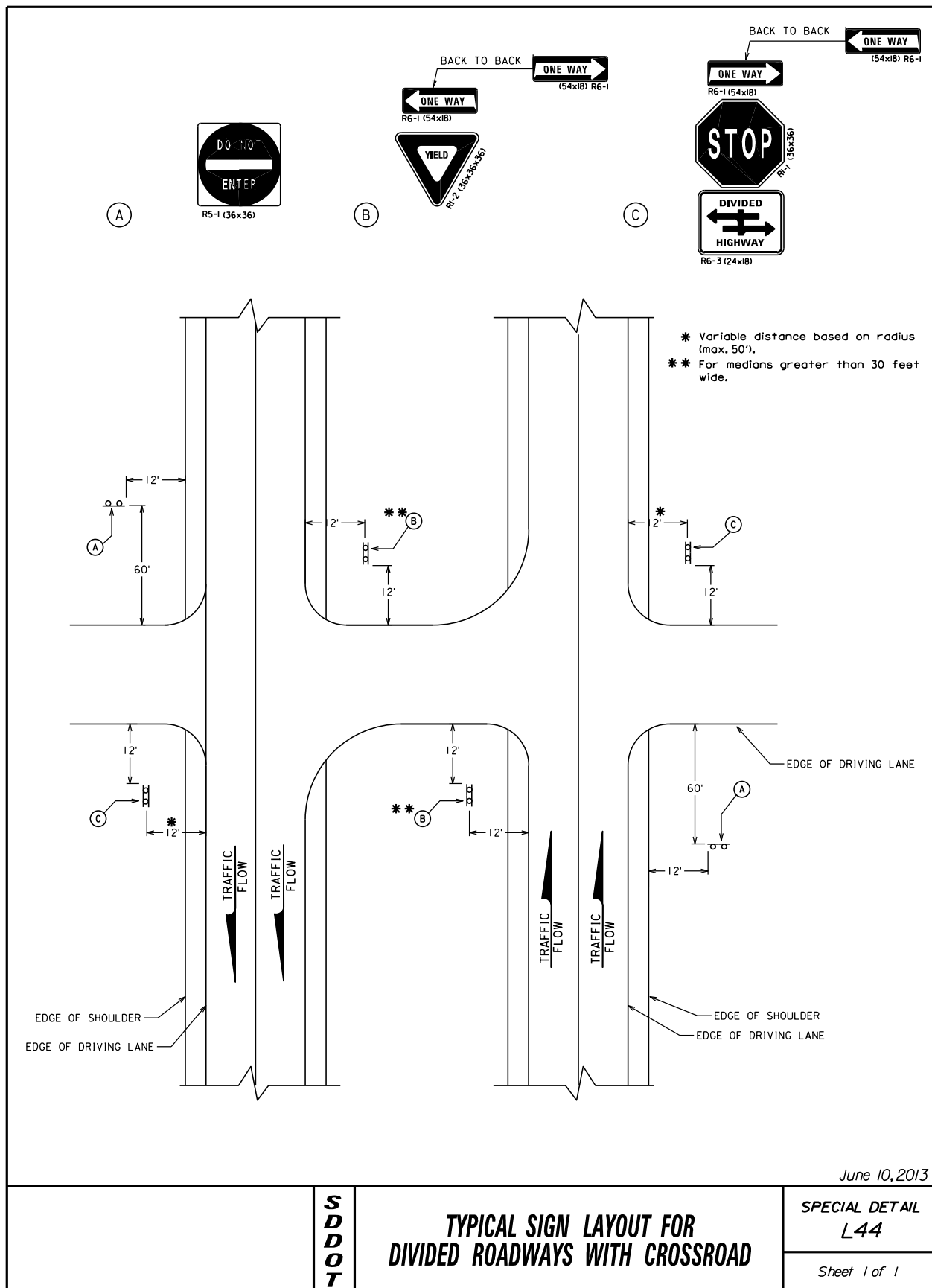
June 10, 2013

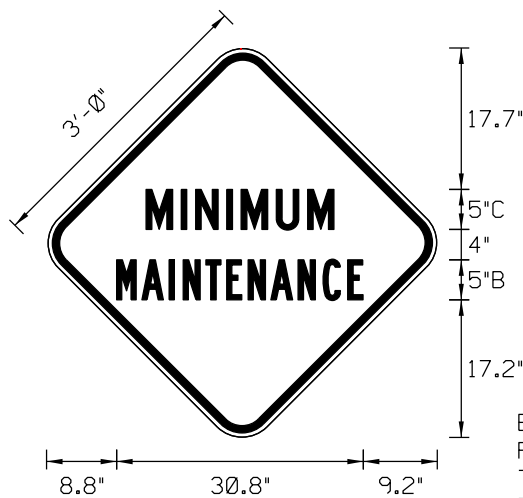
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**TYPICAL SIGN LAYOUT FOR
ROADWAYS WITH UNIMPROVED SIDEROAD**

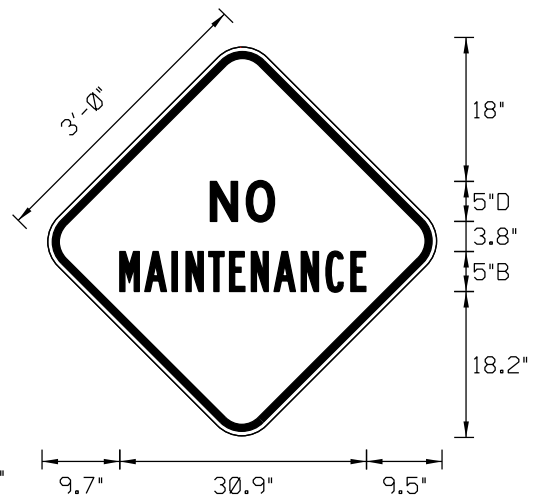
**SPECIAL DETAIL
L42**

Sheet 1 of 1



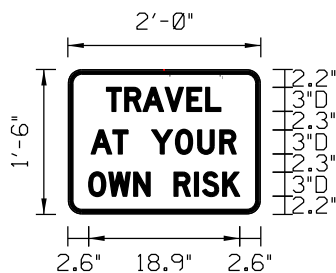


W70-1

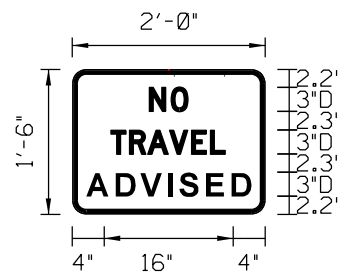


W70-2

BORDER
R=1.625"
TH=0.875"
IN=0.625"



W70-3



W70-4

BORDER
R=1.125"
TH=0.625"
IN=0.375"

Legend and border will be black vinyl non-reflective material on fluorescent yellow Type XI background conforming to ASTM D4956.

The W70-3 will be installed at each location where a W70-1 is installed and a W70-4 will be installed at each location where a W70-2 is installed.

Use of the W70-2 & W70-4 sign will be limited to Township Roads only.

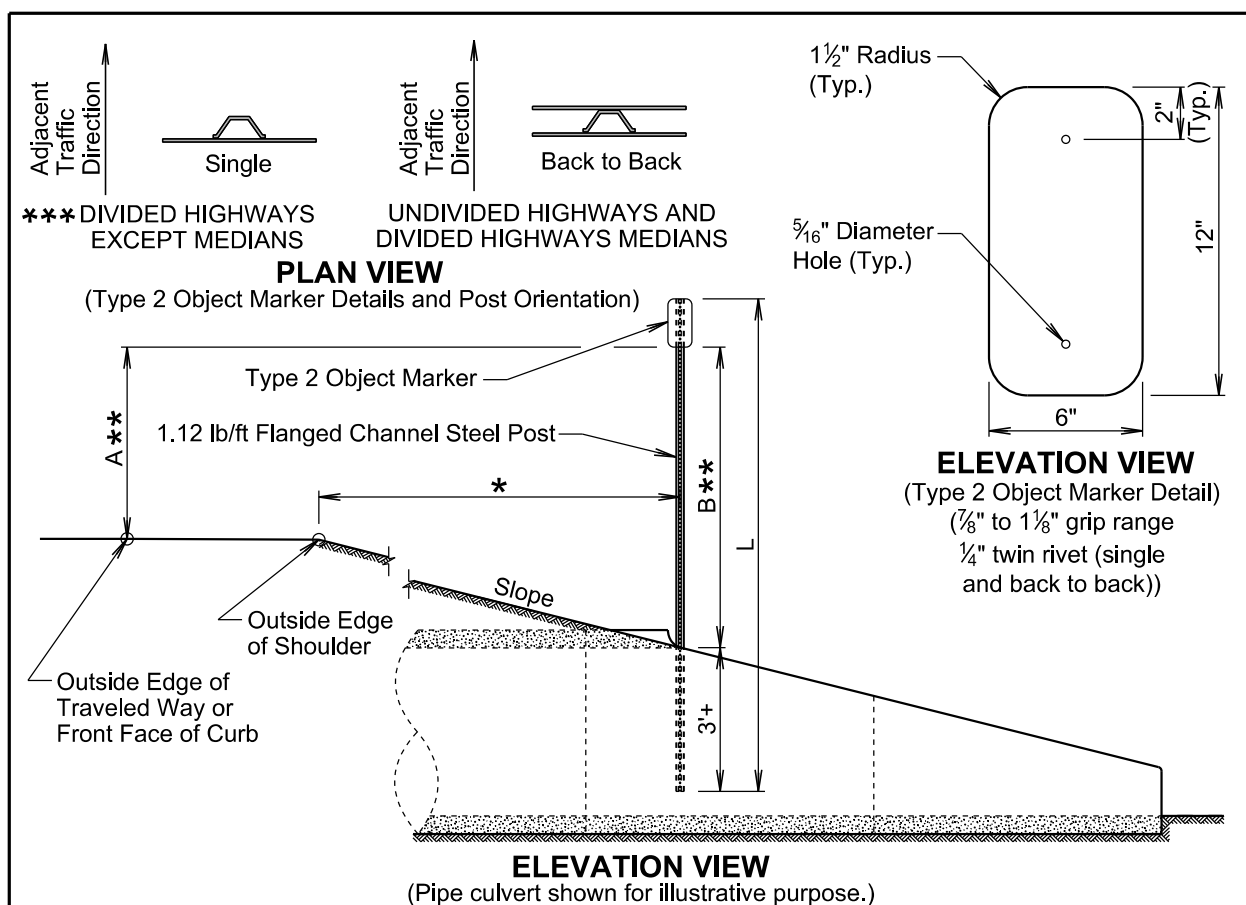
August 25, 2021

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**SIGN DETAIL FOR MINIMUM
& NO MAINTENANCE ROADS**

**SPECIAL DETAIL
L50**

Sheet 1 of 1



TYPE 2 OBJECT MARKER POST LENGTHS										
OFFSET (*)		1'	2'	3'	4'	5'	6'	7'	8'	Greater Than 8'
POST LENGTH (L)										
SLOPE	3:1	8'-6"	8'-9"	9'-3"	9'-6"	9'-9"	10'-3"	10'-6"	10'-9"	8'-0"
	4:1	8'-6"	8'-9"	9'-0"	9'-3"	9'-9"	9'-9"	10'-0"	10'-3"	8'-0"
	5:1	8'-3"	8'-6"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	9'-9"	8'-0"
	6:1	8'-3"	8'-6"	8'-9"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	8'-0"

GENERAL NOTES:

*** The type 2 object marker may be installed back to back when specified in the plans.

Post Length L was calculated based on a shoulder width of 6 feet at a crossslope of 4 percent and L was rounded up to the nearest 3 inches.

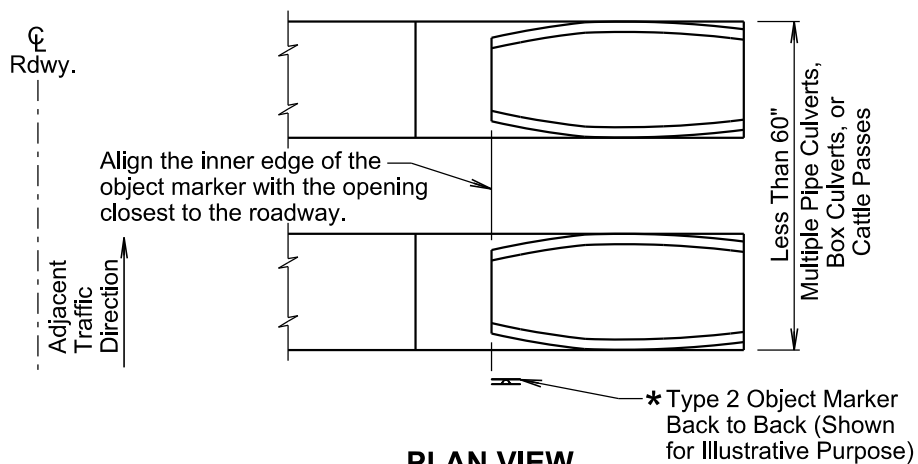
** Dimension A is 4 feet when the Offset * is 8 feet and less. Dimension B is 4 feet when Offset * is greater than 8 feet.

The type 2 object marker and the 1.12 lb/ft flanged channel steel post will be in conformance with Specifications Section 982.2 J.

Payment for the type 2 object marker will be in conformance with Specification Section 632.5 B.

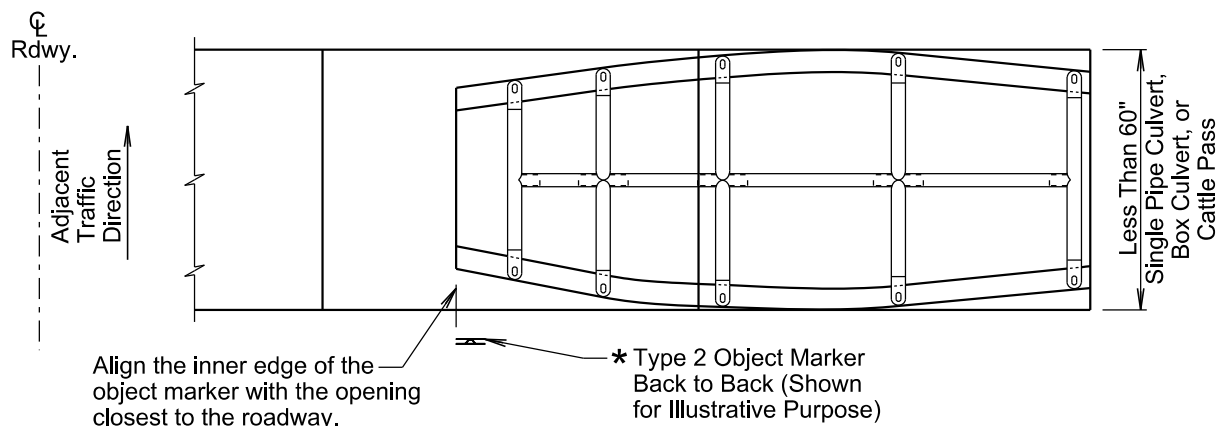
December 23, 2019

Published Date: 1st Qtr. 2023	S D D O T	TYPE 2 OBJECT MARKER (DIRECT DRIVE)	PLATE NUMBER 632.01
			Sheet 1 of 1



PLAN VIEW

(For Multiple Pipe Culverts, Box Culverts, and Cattle Passes)
(Pipe culverts shown for illustrative purpose.)
(Embankment is not shown.)



PLAN VIEW

(For Single Pipe Culvert, Box Culvert, and Cattle Pass)
(Pipe culvert shown for illustrative purpose.)
(Embankment is not shown.)

GENERAL NOTES:

This standard plate will be used in conjunction with standard plate 632.01.

- * The type 2 object markers will be installed at the locations shown above. The type 2 object markers, single faced or back to back, will be as specified in the plans.

December 23, 2019

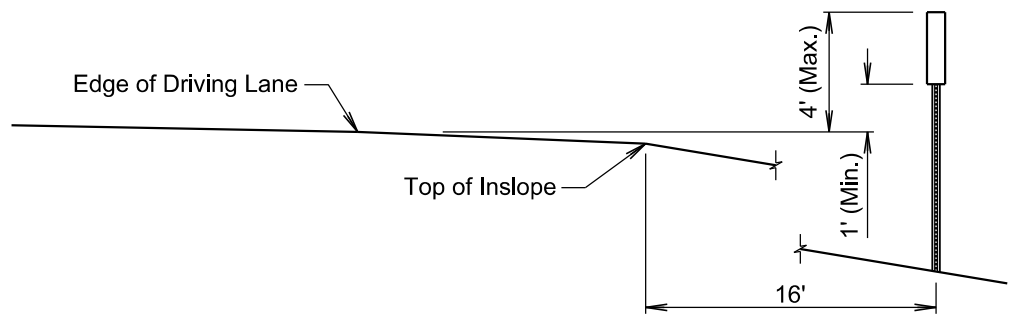
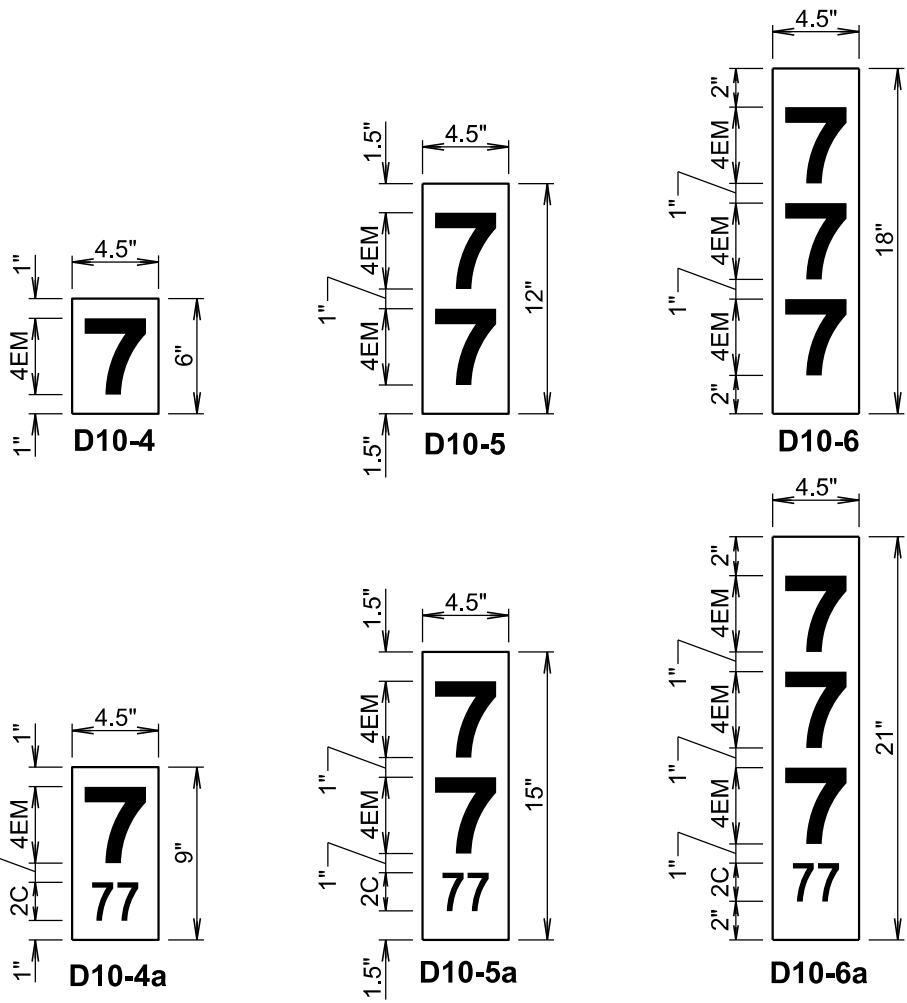
Published Date: 1st Qtr. 2023

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**TYPE 2 OBJECT MARKER AT PIPE
CULVERTS, BOX CULVERTS, AND CATTLE PASSES**
(Less than 60" Overall Width)

PLATE NUMBER
632.03

Sheet 1 of 1

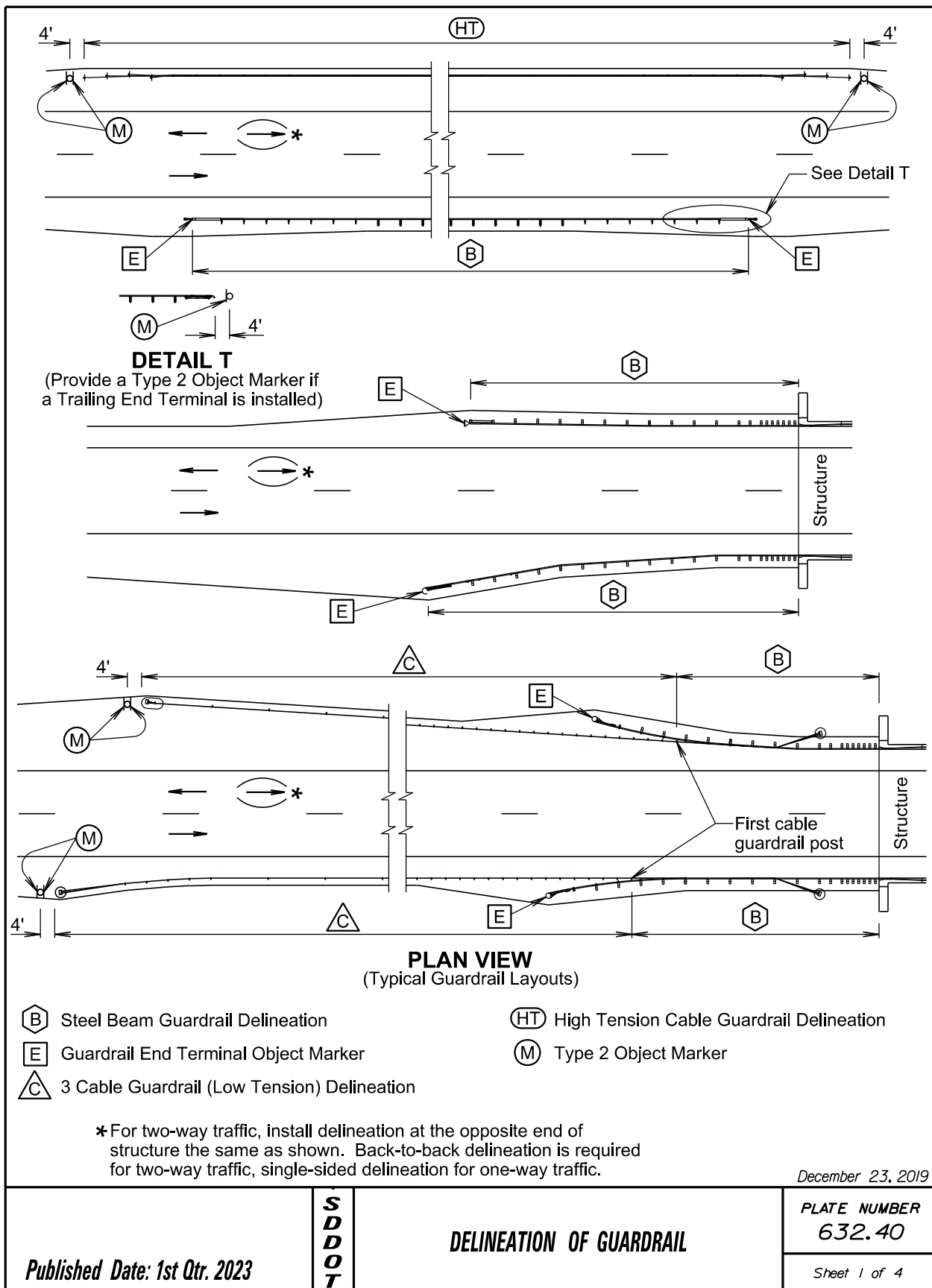


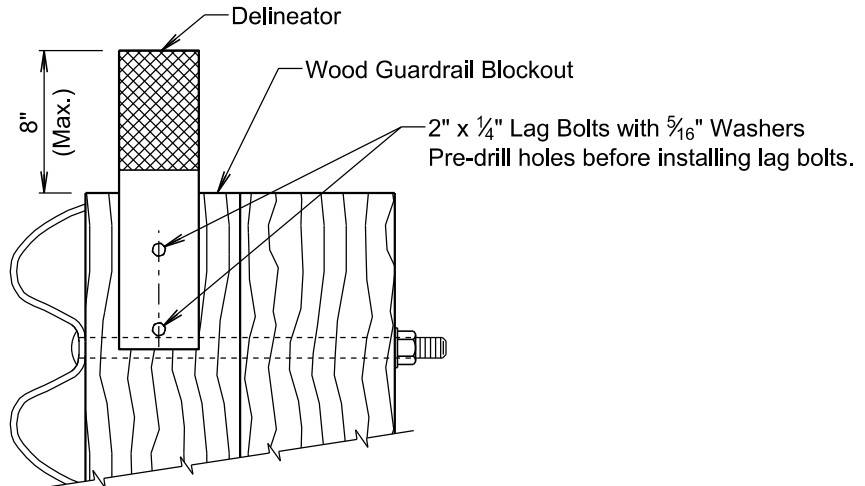
GENERAL NOTES: **ELEVATION VIEW**

- Background will be high intensity green.
- Legend will be high intensity white.
- Signs will have squared corners with no border.
- Sign locations will be staked by the Engineer.

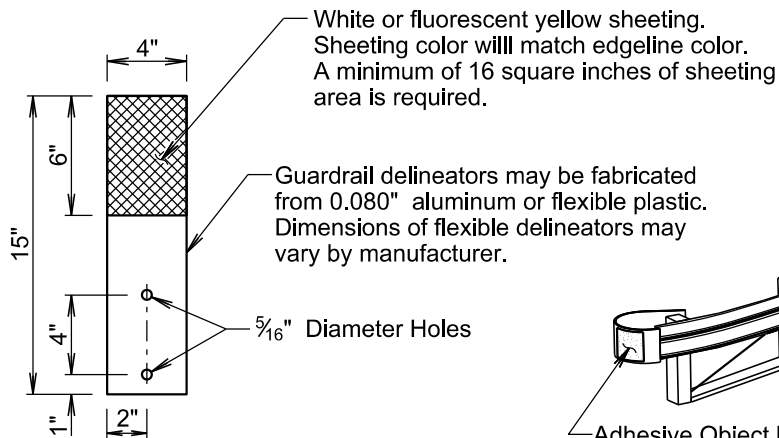
December 23, 2019

Published Date: 1st Qtr. 2023	S D D O T	NON-INTERSTATE MILEAGE REFERENCE MARKERS	PLATE NUMBER 632.30 Sheet 1 of 1
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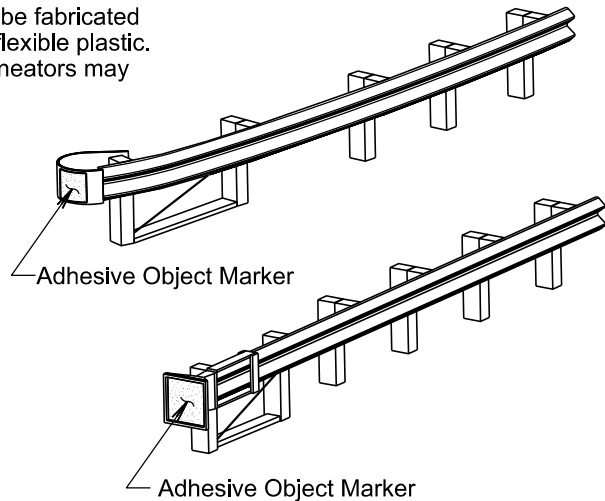




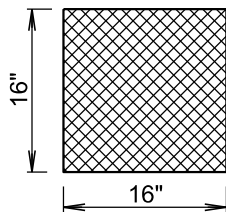
B STEEL BEAM GUARDRAIL DELINEATION



DELINEATOR
(For Steel Beam Guardrail)



E GUARDRAIL END TERMINAL OBJECT MARKER



ADHESIVE OBJECT MARKER

Adhesive object marker dimensions may vary due to shape of terminal end. A minimum of 256 square inches of object marker sheeting area is required. The sheeting will be fluorescent yellow.

December 23, 2019

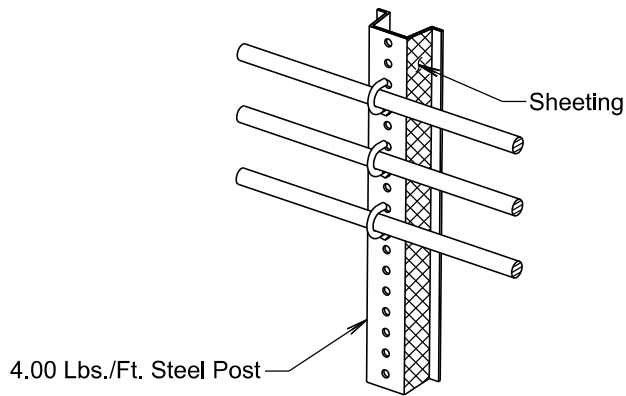
Published Date: 1st Qtr. 2023

SDOT

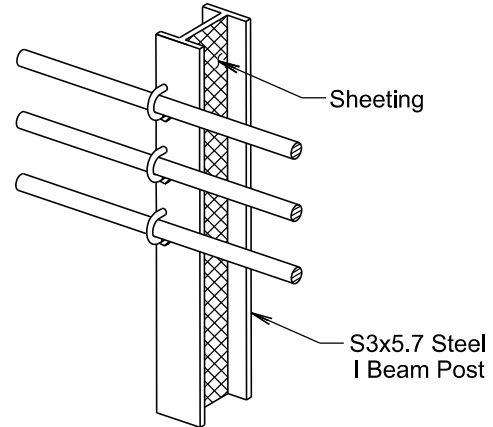
DELINEATION OF GUARDRAIL

PLATE NUMBER
632.40

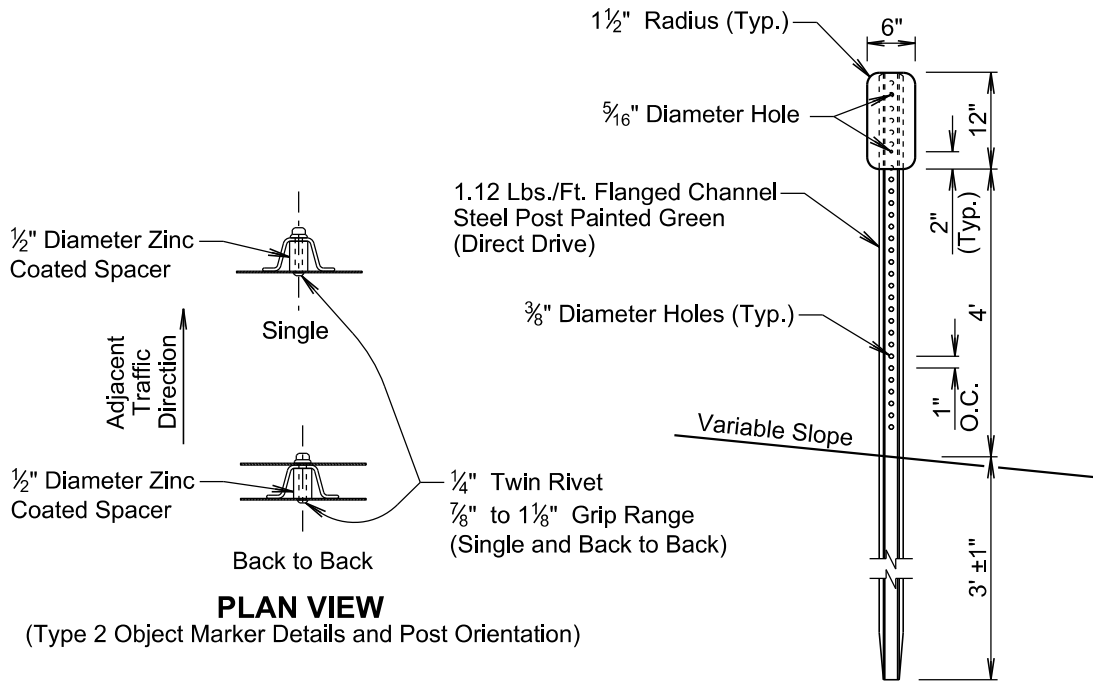
Sheet 2 of 4



△ 3 CABLE GUARDRAIL (LOW TENSION) DELINEATION



△ 3 CABLE GUARDRAIL (LOW TENSION) DELINEATION



(M) (Type 2 Object Marker)
(For Marking 3 Cable Guardrail (Low Tension) Anchor, High Tension Cable Guardrail Anchor, and Trailing End Terminal)

December 23, 2019

Published Date: 1st Qtr. 2023

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DELINEATION OF GUARDRAIL

PLATE NUMBER
632.40

Sheet 3 of 4

GENERAL NOTES:

The delineation of high tension cable guardrail will be reflective sheeting placed back to back on every other post cap or cable spacer. The sheeting will be type XI in conformance with ASTM D4956. The color of the reflective sheeting shall be the same as the nearest pavement marking.

The delineators for steel beam guardrail and sheeting on 3 cable guardrail (low tension) posts will be covered with a minimum of 16 square inches of reflective sheeting. The reflective sheeting will be type XI in conformance with ASTM D4956. Along two-way roadways the sheeting will be on both sides of the delineators and guardrail posts and will be white in color. For one-way roadways the sheeting will only be required on the side facing traffic and the color will be the same as the nearest pavement marking, yellow on the left side of the roadway and white on the right side.

When steel beam guardrail is attached to a bridge the first delineator will be attached to the post nearest the bridge.

At bridges with guardrail less than 200 feet in length, a minimum of 4 delineators will be placed in addition to the end terminal yellow object marker. The spacing between the delineators will be approximately one third of the length of the guardrail.

At bridges with guardrail 200 feet and greater in length, including bridges that have steel beam guardrail transitioning to 3 cable guardrail (low tension), the delineators will be placed at a spacing of approximately 50 feet. Delineation will extend throughout the length of the guardrail system.

Steel beam guardrail that is not attached to a bridge and is less than 200 feet in length, a minimum of 4 delineators will be placed in addition to the end terminal yellow object markers. The spacing between the delineators will be approximately one third of the length of the guardrail.

Steel beam guardrail that is not attached to a bridge and is 200 feet and greater in length, including steel beam guardrail transitioning to 3 cable guardrail (low tension), the delineators will be placed at a spacing of approximately 50 feet. Delineation will extend throughout the length of the guardrail system.

All costs for furnishing and installing single or back to back guardrail delineation on 3 cable guardrail and steel beam guardrail will be included in the contract unit price per each for "Guardrail Delineator".

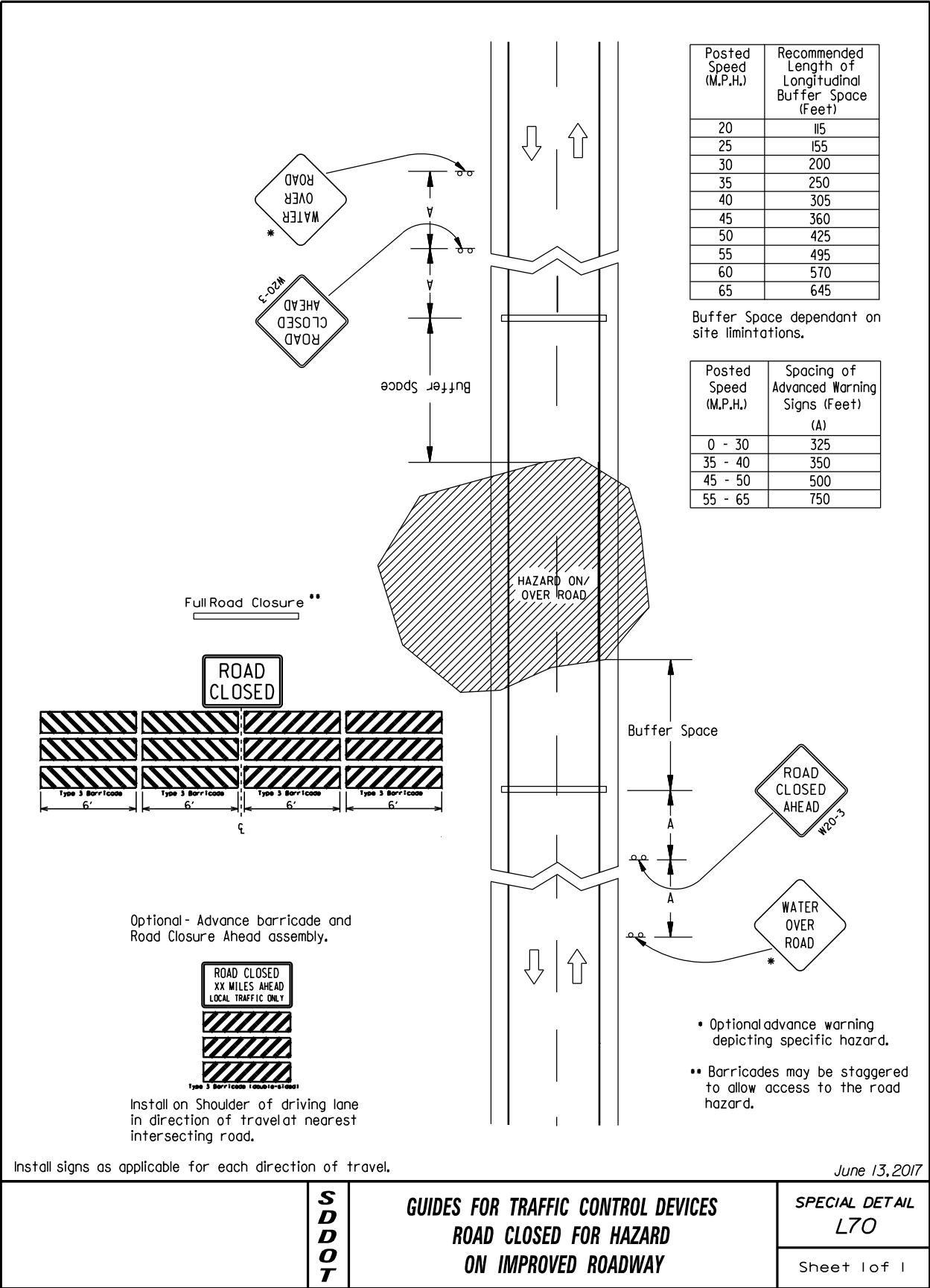
All costs for furnishing and installing the reflective sheeting on the cable spacers or post caps for the high tension cable guardrail will be incidental to the respective high tension cable guardrail contract item.

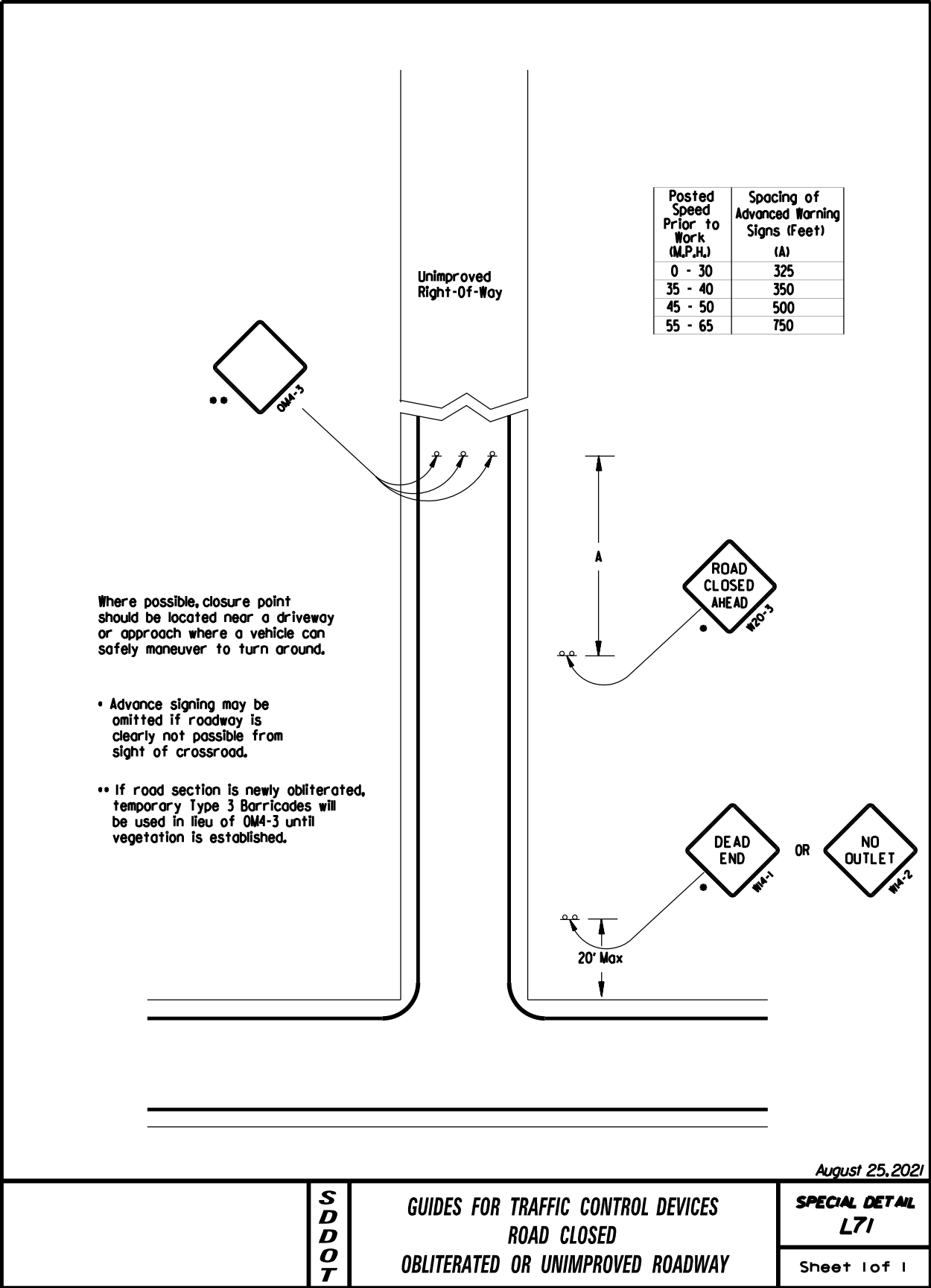
An adhesive object marker will be placed on the end of the W beam guardrail or MGS end terminal. The adhesive object marker dimensions may vary due to the shape of the terminal end. A minimum of 256 square inches of object marker reflective sheeting area is required. The reflective sheeting will be fluorescent yellow type XI sheeting in conformance with ASTM D4956. All costs for furnishing and installing the adhesive object marker will be incidental to various contract items.

A type 2 object marker will be placed adjacent to the 3 cable guardrail (low tension) anchor, high tension cable guardrail anchor, and trailing end terminal at the location noted on sheet 1 of this standard plate. The type 2 object marker (6" x 12") will have fluorescent yellow type XI sheeting in conformance with ASTM D4956. All costs for furnishing and installing the type 2 object marker including the steel post, 6" x 12" reflective panel, and hardware will be included in the contract unit price per each for "Type 2 Object Marker" for single-sided and "Type 2 Object Marker Back to Back" for back to back type 2 object markers.

December 23, 2019

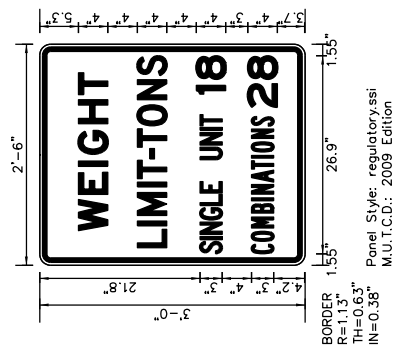
<i>Published Date: 1st Qtr. 2023</i>	S D D O T	DELINEATION OF GUARDRAIL	PLATE NUMBER 632.40
			Sheet 4 of 4





SIGN DETAIL

1:20

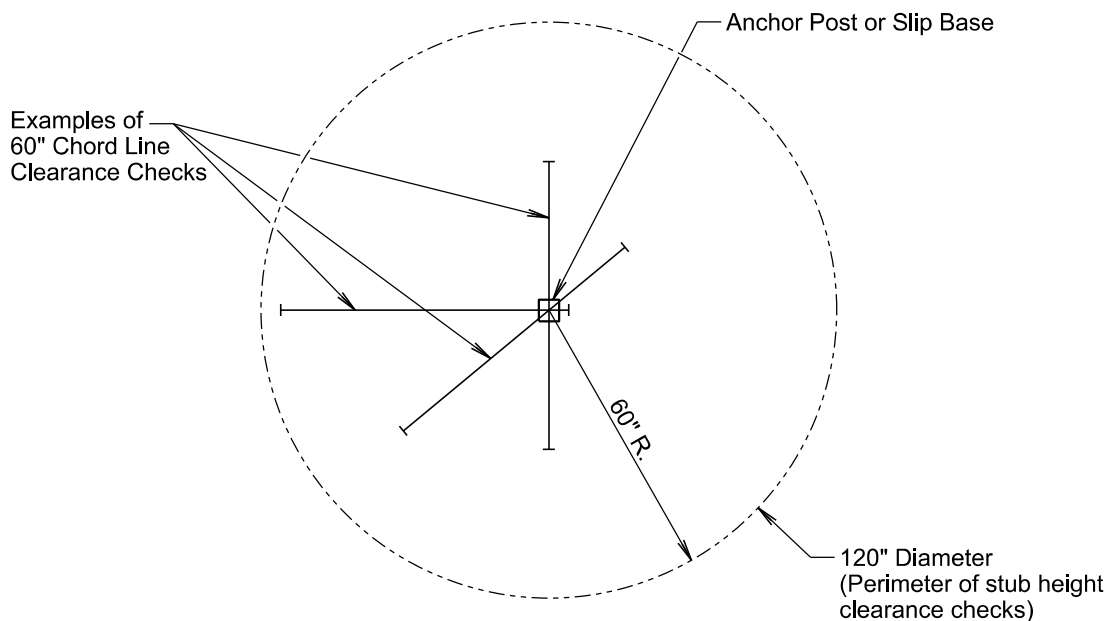


Panel Style: regulatory.ssi
Dimensions are in inches.tenths

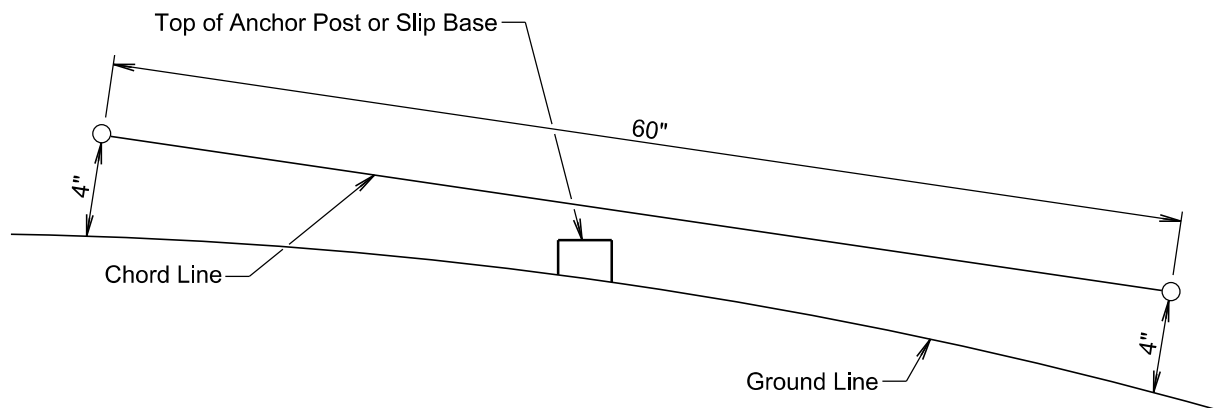
Letter locations are paneled to lower left corner

SIGN NUMBER	R12-3a
WIDTH x HGT:	2'-6" x 3'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.13"
MOUNTING	Ground
BACKGROUND	TYPE: High Intensity COLOR: White
LEGEND/BORDER	TYPE: Non-reflective COLOR: Black/Black

[illegible][illegible]



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

Published Date: 1st Qtr. 2023

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BREAKAWAY SUPPORT STUB CLEARANCE

PLATE NUMBER
634.99

Sheet 1 of 1

Appendix A

The following statutes are for general reference only. As of July 1, 2018, numerous changes in specific language of many of the following laws have been enacted. Please refer to current language.

SD State Codified Laws on No Maintenance and Minimum Maintenance Roads

31-12-46. Minimum maintenance roads established.

The board of county commissioners may designate any road on the county highway system as a minimum maintenance road if the board determines that the road or a segment of the road is used only occasionally or intermittently for passenger and commercial travel. The board shall identify the beginning and end points of the road designated as minimum maintenance. A minimum maintenance road may be maintained at a level less than the minimum standards for full maintenance roads but shall be maintained at the level required to serve the occasional or intermittent traffic.

31-12-47. Posting notification of minimum maintenance road.

The board of county commissioners shall post signs on a minimum maintenance road to notify the motoring public that it is a minimum maintenance road and that the public travels on the road at its own risk. The signs shall be posted at the entry points to and at regular intervals along a minimum maintenance road. A properly posted sign shall be prima facie evidence that adequate notice of a minimum maintenance road has been given to the motoring public.

31-13-1. Township supervisors responsible for secondary roads.

The board of township supervisors shall construct, repair, and maintain all of the township roads within the township except for section lines designated as no maintenance section lines pursuant to § 31-13-1.4. The township road system consists of section line roads; judicially declared roads; roads impliedly accepted by the township through routine performance of certain maintenance activities, such as grading, graveling and snow removal, and accepting funds from the county pursuant to §§ 32-11-4.1 and 32-11-6 for a period of at least fifteen years; and any other roads designated by resolution of the board as being on the township road system. A road may only be vacated through the process specified in chapter 31-3. Before a road may be added to the township road system, the road shall meet the minimum requirements specified in §§ 31-18-2 and 31-13-4, unless the board, by resolution, waives this requirement.

31-13-1.1. Designation of minimum maintenance road--Level of maintenance.

The board of township supervisors may designate a secondary road within the township as a minimum maintenance road if the board determines that the road or a segment of the road is used only occasionally or intermittently for passenger and commercial travel. The board shall identify the beginning and end points of the road designated as minimum maintenance. A minimum maintenance road may be maintained at a level less than the minimum standards for full maintenance roads, but shall be maintained at the level required to serve the occasional or intermittent traffic.

31-13-1.2. Posting of warning signs on minimum maintenance roads.

The board of township supervisors shall post signs on a minimum maintenance road to notify the motoring public that it is a minimum maintenance road and that the public travels on the road at its own risk. The signs shall be posted at the entry points to and at regular intervals along a minimum maintenance road. A properly posted sign shall be prima facie evidence that adequate notice of a minimum maintenance road has been given to the motoring public.

31-13-1.3. Designation of full and minimum maintenance roads at annual meeting--Map.

The board shall, at its annual meeting, designate which township roads are full maintenance roads and which are minimum maintenance roads. The board of township supervisors shall publish any resolution designating a township road as minimum maintenance if the road is a school route. The designation is final, after a lapse of thirty days, unless appealed as provided in chapter 31-3. Following its annual meeting, the board shall submit to the county auditor an official map showing each road on the township road system, including any road designated as a minimum maintenance road.

31-13-1.4. Designation of no maintenance section line.

The board of township supervisors may designate an unimproved section line not maintained for vehicle travel as a no maintenance section line. The board shall identify the beginning and end point of the section line designated as no maintenance. The board does not have any responsibility on a no maintenance section line except to require removal or remediation of a manmade obstruction, if needed, to maintain the public access.

31-13-1.5. Posting of signs on no maintenance section line.

The board of township supervisors shall post signs on a no maintenance section line to notify the motoring public that it is a no maintenance section line and that no travel is advised. The signs shall be posted at each entry point and at regular

intervals along a no maintenance section line. A properly posted sign is prima facie evidence that adequate notice of a no maintenance section line has been given to the motoring public.

31-13-1.6. Designation of road unsafe for vehicle travel as no maintenance road.

The board of township supervisors may designate a road that is unsafe for vehicle travel as a no maintenance road. The board shall identify the beginning and end point of the road designated as no maintenance. The board does not have any responsibility on a no maintenance road except to require removal or remediation of a manmade obstruction, if needed, to maintain the public access.

31-13-1.7. Posting of signs that no vehicle travel is advised on no maintenance road.

The board of township supervisors shall post signs on a no maintenance road to notify the motoring public that it is a no maintenance road and that no vehicle travel is advised. The signs shall be posted at each entry point and at regular intervals along a no maintenance road. A properly posted sign is prima facie evidence that adequate notice of a no maintenance road has been given to the motoring public.

As of July 1, 2018 new statutes provide authority to County to declare a no maintenance road along with required signing. Please refer to SDCL for further information.

SD State Codified Laws on Local Roads

31-12-7. Divisions of system into sections--Recording in county road book.

The county highway superintendent shall maintain in a county road book a complete record of the divisions of the county highway system into sections, each section being designated by some appropriate number, name, or letter, and the starting point and terminus of each section being clearly designated at length.

31-12-18. Width of culverts.

Each culvert on the county highway system shall have a width of not less than twenty-four feet.

31-12-26. Responsibility for secondary roads in unorganized territory.

Each board of county commissioners and county superintendent of highways in organized counties shall construct, repair, and maintain all secondary roads within the counties not included in any municipality, organized civil township, improvement district organized pursuant to chapter 7-25A, or county road district organized pursuant to chapter 31-12A.

31-13-4. Width of highway grades.

Plans and specifications for contracts let by the board of township supervisors shall provide that all highway grades shall be not less than twenty feet in width.

31-3-6. Petition to locate, change, or vacate a highway.

Upon receiving a petition signed by two or more voters of an organized civil township, the board of supervisors, having jurisdiction, shall provide for a public hearing, as required by § 31-3-7, and after consideration of all information, opinions, and arguments presented, may, except as provided in §§ 31-3-12 and 31-3-44, vacate, change, or locate a highway in the township, if the public interest will be better served by the action.

Upon receiving a petition signed by voters of the county, at least equal in number to one percent of those who cast ballots in the county during the last gubernatorial election, the board of county commissioners, having jurisdiction, shall provide for a public hearing, as required by § 31-3-7, and after consideration of all information, opinions, and arguments presented, may, except as provided in §§ 31-3-12 and 31-3-44, vacate, change, or locate a highway in the county, if the public interest will be better served by the action.

Upon receiving a petition signed by two thirds of the adjacent landowners or all adjacent landowners if there are fewer than three, the board of county commissioners, having jurisdiction, shall provide for a public hearing, as required by § 31-3-7, and after consideration of all information, opinions, and arguments presented, may vacate the highway, if the public interest will be better served by the action.

The petition must set forth the beginning, course, and termination of the highway proposed to be located, changed, or vacated and, if applicable, the name of each person owning the land through which the proposed highway may pass.

31-3-6.1. Access to public lands or public waters.

Notwithstanding any other provisions of this chapter, no county or township may vacate a highway which provides access to public lands or public waters embracing an area of not less than forty acres.

31-3-8. Resolution and order of board--Description of land--Map maintained by county auditor.

The resolution and order provided for in § 31-3-7 shall describe the highway vacated, changed, or located in general language by description of the land across which the highway extends, or by landmarks or survey designate the particular highway intended. The county auditor shall prepare and maintain a current map showing the course and location of all county highways within or on the border of the county. The county auditor shall, within thirty days of the resolution and order provided for in § 31-3-7, make those changes to the map as necessary to reveal the course and location of any county highway vacated, changed, or located. A certified copy of the resolution and order shall be filed with the register of deeds.

31-3-13. Highway on township line--Joint resolution.

In case the highway to be vacated, changed, or located is upon a township line, it shall be necessary that the board of supervisors of the adjoining civil township, or the board of county commissioners of the county, if the adjoining congressional township is unorganized, as the case may be, pass a like resolution and enter an order vacating, changing, or locating said highway.

31-3-18. Width of highway.

Any public highway located under §§ 31-3-6 to 31-3-37, inclusive, shall be at least sixty-six feet in width, and may be one hundred feet in width if all residents of land adjoining the highway petition for such width. However, a highway not exceeding one-half mile in length and not located on any section line shall be at least thirty-three feet in width if, in the judgment of the board of county commissioners, such width is sufficient to accommodate properly the travel on the highway. Each order locating or changing any highway shall specify the width of the highway.

31-9-1. Relinquishment of highways in national parks--Cession of jurisdiction.

The Department of Transportation and the board of county commissioners of an affected county, may relinquish to the United States for use and construction and control of highways by the secretary of interior, acting through the national park service, all of the interest of the state and the county in such portions of public highways lying within the boundaries of national parks and national monuments. The relinquishment of interest in the highways shall operate as a cession to the United States of jurisdiction for highway purposes over such portions of the highways lying within said national parks or national monuments.

31-9-4. County roads used by National Forest Service--Cooperative agreement for joint construction and use.

The board of county commissioners may enter into cooperative agreements with the Forest Service of the United States Department of Agriculture for the joint construction, maintenance, and use of roads located within the boundaries of the county, where such roads are used by the Forest Service in the protection, administration, and utilization of the national forests and are also used by communities or persons within or adjacent to such national forests in the use and development of the resources thereof or where such roads otherwise serve the needs of the public. Costs incurred by the county pursuant to the provisions of this section shall be appropriated from the county general fund.

31-14-2. County commissioners' responsibility for bridges and culverts.

The duty to construct and maintain all bridges and culverts throughout the county, except upon the state trunk highway system, is hereby imposed upon the board of county commissioners, subject to conditions relating to bridges and culverts on secondary highways in townships.

31-14-33. Inspection of township culverts--Duty of board of supervisors.

The township board of supervisors shall have each culvert on the secondary highways within the township annually inspected and, if necessary, repaired.

31-14-34. Inspection of culverts on secondary highways and county highway system--Duty of county highway superintendent.

The county highway superintendent shall make inspection of all culverts on secondary highways other than those described in § 31-14-33 and of all culverts on the county highway system and report to the board of county commissioners, which shall cause necessary repairs to be made.

31-17-1. County highway system on state line--Agreements for assignment of responsibility.

If any portion of a county highway system lies on a state line, the Department of Transportation may confer with the authorities of the bordering state and agree upon the assignment of portions of the highway to the counties of the two states for construction, repair, and maintenance.

31-17-4. County highway system on county line--Effect of assignment to county.

Any portion of a county highway system lying on a county line and assigned to a county by the Transportation Commission for construction and maintenance shall be considered as lying fully within the county and all procedure and requirements apply as if the road lay wholly within the limits of one county.

31-17-5. Secondary highway on county line--Assignment of responsibility.

The secondary highways on county lines shall be assigned to the charge of the boards of supervisors of organized civil townships or the board of county commissioners in the case of unorganized territory as may be agreed upon by the respective boards of county commissioners and in case of disagreement, as determined by the Transportation Commission.

31-17-6. Secondary highway on township line--Assignment of responsibility.

The secondary highways wholly within one county on lines between organized townships shall be assigned to the charge of such townships as the respective boards of supervisors may agree, and, in case of disagreement, as the board of county commissioners shall determine; and those on the line between organized civil townships and unorganized territory as the board of commissioners shall determine.

31-17-7. Boundary line highways between organized townships--Equal contribution by townships required unless mutual agreement reached.

Adjoining townships shall contribute equally to the construction, improvement, and repair of any township highway that lies on a section line forming the boundary between the townships. However, this section and §§ 31-17-8 to 31-17-15, inclusive, do not prohibit the supervisors of adjoining townships, by a majority of the supervisors from each township, from scheduling and holding a joint meeting of their township boards to mutually agree on alternative procedures for apportioning the responsibilities and costs of constructing, altering, or repairing any township boundary line highway, bridge, or culvert. Each township clerk shall record the time and location of the joint meeting and shall immediately publish notice of the proposed joint meeting in the same manner provided in §§ 8-3-4 and 8-3-5. Any order, notice, award, or apportionment contract, and any other documents resulting from the joint meeting shall be produced in duplicate, filed with each township office, and recorded by each township clerk. Any order, contract, or mutual agreement made before July 1, 1995, between adjoining township boards of supervisors apportioning or reapportioning a township boundary line road, bridge, or culvert is hereby validated and has the same force and effect as though executed after that date.

31-17-16. Secondary highways on municipal boundaries--Assignment of responsibility.

The secondary highways on the boundary line of any municipality shall be assigned to such municipality and adjoining civil township or unorganized territory as provided in §§ 31-17-5 and 31-17-6.

31-18-1. Existence of section-line highways by operation of law.

There is along every section line in this state a public highway located by operation of law, except where some portion of the highway along such section line has been heretofore vacated or relocated by the lawful action of some authorized public officer, board, or tribunal.

31-18-2. Width of highways--Side from which taken.

Every statutory section-line highway shall be sixty-six feet wide and shall be taken equally from each side of the section line, unless changed as provided in this title, but nothing herein contained shall prevent the highway authority charged with the construction, reconstruction, or repair of any public highway along a section line from purchasing or condemning right-of-way for widening the highway to more than sixty-six feet or from purchasing or condemning more right-of-way on one side of the section line than on the other, provided they deem it necessary so to do in order to provide a better highway, to avoid destruction of trees or valuable buildings or to avoid unsuitable terrain.

31-18-3. Vacation or change of location of highways.

The board of county commissioners may vacate or change the location of any section-line highway under its jurisdiction and the board of supervisors of an organized township may vacate or change the location of any section-line highway under its jurisdiction, as provided in this title, but neither board may vacate or change any portion of the state trunk highway system or any highway constructed by state or federal aid or any highway within the limits of a municipal corporation. A board of supervisors may not vacate or change any portion of the county highway system, nor may a board of county commissioners vacate or change any portion of the township road system. No board of county commissioners or board of supervisors may vacate a section-line highway that provides access to public lands or public waters embracing an area of not less than forty acres. This section does not prohibit the closing of a section-line highway to vehicular traffic if the highway is unsafe for vehicular traffic.

31-18-4. Relict lands--Highway rights continue.

The apportionment, division, or survey of lands acquired by reliction, either by the owner or owners of such lands, or by virtue of the judgment of any court, pursuant to the provisions of this code, shall not in any manner operate as an abandonment or vacation of any legal highway along or across any such lands, and all section-line highways along or across any such lands shall continue to be public highways until changed or vacated in the manner provided by law.

31-24-1. Duty of highway authorities to provide access to abutting property at public expense--New construction.

If the construction, improvement, and repair of any public highway by the state, or by any county or township, leaves a ditch or elevation along the roadside and deprives any abutting landowner of easy and convenient access from the owner's land to the highway, the highway authority, except as provided by chapters 31-7 and 31-8, shall provide the owner of the abutting tract or farm, as well as each church, school, park, playground, or other public building or ground, with one point of easy and convenient access to a public highway by constructing at the public expense, such grades, approaches, bridges, culverts, or other structures as may be necessary for that purpose. However, the provision authorizing construction of entrances at the expense of the authority having charge of the maintenance only applies to new construction.

31-24-2. Approaches necessitated by highway construction--Maintenance.

Approaches required by § 31-24-1 shall be built by the highway authority constructing the highway if the building of such approach becomes necessary as a result of highway construction. In all cases any such structure, culvert, bridge, or approach so constructed shall be maintained and kept in repair by the highway authorities who are charged with the maintenance of the highway.

31-24-3. Limitation on number of farm entrances--Additional entrances at owner's expense.

The owner, as a matter of right, is not entitled under § 31-24-1 to the construction of more than one farm entrance on any one tract or parcel of land at the expense of the public authority whose duty it is to maintain the highway. However, the owner may at the owner's expense upon making application to and receiving written consent of the authority construct other entrances if the entrances are constructed at the place and in the manner designated by the authority in its written permit.

31-24-4. Additional entrances to property previously having more than one farm entrance--Limitations.

Notwithstanding § 31-24-3, if at the time of the construction, improvement, or repair of any public highway the abutting owner has more than one farm entrance to the highway, which entrance has been in reasonably constant use for more than two years prior to the new construction the owner shall be furnished a like number of entrances by the authority having charge of the construction, improvement, or repair, if the entrances do not materially add to the hazard of public travel on the highway. However, no owner of property adjoining the highway is entitled to more than two such entrances at the expense of the authority charged with the maintenance of the highway, on any one continuous half mile of adjoining property.

31-28-6. Warning signs at points of danger--Maintenance--Violation as misdemeanor.

The public board or officer whose duty it is to repair or maintain any public highway shall erect and maintain at points in conformity with standard uniform traffic control practices on each side of any sharp turn, blind crossing, or other point of danger on such highway, except railway crossings marked as required in § 31-28-7, a substantial and conspicuous warning sign. The sign shall be on the right-hand side of the highway approaching such point of danger. Failure to comply with the provisions of this section is a Class 1 misdemeanor.

31-28-7. Railway crossing signs--Maintenance--Violation as misdemeanor.

The public board or officer whose duty it is to repair or maintain any public highway shall erect and maintain at points in conformity with standard uniform traffic control practices on each side of the place at which a highway crosses an operational railway track or right-of-way, except within the limits of municipalities, a standard railroad advance warning sign. The sign shall be on the right-hand side of the highway approaching such crossing and at a distance from the crossing as the department or other controlling body shall direct. Any legally abandoned or nonoperational track which is crossed by a public highway and at which the crossing has been properly marked as a railway grade crossing may be marked with a supplemental sign, meeting uniform traffic control practices, to inform drivers of vehicles identified in § 32-29-5 that a stop is not required at that crossing. Failure to comply with the provisions of this section is a Class 1 misdemeanor.

31-28-16. Arterial highways--Right-of-way--Violation as misdemeanor.

The department and boards of county commissioners may designate certain state and county highways, or portions thereof, as preferential or arterial highways. The traffic upon any highway so designated shall have the right-of-way. Failure to comply with the provisions of this section is a Class 2 misdemeanor.

31-28-28. Unauthorized possession of official signs or markers as misdemeanor.

No person may possess any sign, guide board, mileage post, signal, or marker erected by the state or by any governmental subdivision unless obtained in a legal manner. A violation of this section is a Class 1 misdemeanor.

32-14-6. Restrictions respecting weight of vehicle--Duration of period of restriction--Signs designating restricted area.

Local authorities, including road districts, may by ordinance or resolution prohibit the operation of vehicles upon any highway or impose restrictions as to the weight of vehicles allowed. Such prohibitions or restrictions apply only to vehicles to be operated upon any highway under the jurisdiction of and for the maintenance of which such local authorities are responsible and only if the highway by reason of physical condition, rain, snow, or other climatic conditions will be seriously damaged or destroyed unless the use of vehicles on the highway is prohibited or the permissible weights of the vehicles are reduced. Any local authority enacting any such ordinance or resolution shall erect and maintain or cause to be erected and maintained signs designating the provisions of the ordinance or resolution at each end of that portion of any highway affected by the ordinance or resolution. The ordinance or resolution is not valid unless such signs are erected and maintained.

32-14-7. Prohibiting trucks or commercial vehicles from use of designated highways--Erection of signs.

Local authorities, including road districts, may by ordinance or resolution prohibit the operation of trucks or other commercial vehicles or impose limitations as to the weights of such vehicles on designated highways. The prohibitions and limitations shall be designated by appropriate signs placed on such highways.

32-22-47. Maximum vehicle weight on bridges--Required and permissible signs--Exception.

The board of county commissioners of any county, the board of supervisors of any township, the board of trustees of any road district, or the Department of Transportation, shall erect and maintain at a point on the right-of-way and within six hundred feet of both entrances to any bridge and may, where it is deemed necessary, erect and maintain at the nearest road intersection in each direction from any bridge, upon any public highway which it is the duty of the board or department to maintain and repair, a conspicuous sign specifying in large numerals, the maximum weight of any vehicle, laden or unladen, which may enter upon or cross over the bridge. No bridge signing is necessary for bridges which can accommodate motor vehicles operating under the legal weight maximums provided in § 32-22-16.

32-25-17. Posting stop signs at intersections with increased maximum--Illumination of stop signs.

Local authorities shall place and maintain upon all through highways under their jurisdiction upon which the permissible speed is increased adequate signs giving notice of such special regulations. Local authorities shall also place and maintain upon each and every highway under their jurisdiction intersecting any said through highway, appropriate stop signs which shall be illuminated at night or so placed as to be illuminated by the headlights of an approaching vehicle.

32-29-1. Indication of right-of-way by stop or yield signs.

Preferential right-of-way at an intersection may be indicated by stop signs or yield signs as authorized in § 32-29-2.

32-29-2. Stop and yield signs to designate through highways--Visibility at night.

The Department of Transportation with reference to state highways and local authorities with reference to highways under their jurisdiction may designate main traveled or through highways by erecting at the entrances thereto from intersecting highways stop or yield signs. All such signs shall be illuminated at night or so placed as to be illuminated by headlights of an approaching vehicle.

32-30-2.4. No-parking zones posted by department--Temporary zones--Signs--Violation as misdemeanor.

The Department of Transportation with respect to highways under its jurisdiction may promulgate rules pursuant to chapter 1-26 to prohibit or restrict the stopping, standing, or parking of vehicles on any highway if such stopping, standing, or parking is dangerous to those using the highway or if the stopping, standing, or parking of vehicles would unduly interfere with the free movement of traffic thereon. If such a rule is promulgated, the highway shall be signed to indicate where such stopping, standing, or parking is prohibited. The secretary of transportation may establish a temporary no parking zone, not to exceed ninety days, if the secretary of public safety and the secretary of transportation, after consultation with the director of the highway patrol, agree that a no parking zone is necessary for the protection of life and property. Such signs are official signs and no person may stop, stand, or park any vehicle in violation of the restrictions stated on such signs. A violation of this section is a Class 2 misdemeanor.

32-30-11.9. Signs to state penalties for illegal use of designated parking spaces--Certain penalties apply although not stated.

Each sign designating a parking space for a person with a physical disability shall state the penalty for illegal use of the parking space. This section only applies to a new sign or a sign that replaces an existing sign after July 1, 2002. However, any fine imposed pursuant to § 32-30-11.3, 32-30-11.4, or 32-30-11.8 applies whether or not the penalty is stated on the sign.

SD State Codified Laws on Speed Limits

32-25-1.1. Maximum daytime speed--Violation as misdemeanor.

Except as provided by § 32-25-4 or pursuant to § 32-25-7, no person may drive a vehicle upon a street or highway at a speed in excess of sixty-five miles per hour. A violation of this section is a Class 2 misdemeanor.

32-25-9.1. Establishment of speed zones by county commissioners--Posting of zones.

Any board of county commissioners may determine and establish speed zones upon all or any part of the highways under its jurisdiction and upon streets and highways on the request of and after any other local authority, including any road district, having charge of the maintenance of the highway has declared its intention to post speed zones. Such speed zones shall be conspicuously posted at the beginning and ending of the zones.

32-25-9.2. Township road speed limit.

No person may drive a vehicle on a township road in excess of fifty-five miles per hour. However, notwithstanding the provisions of § 32-25-9.1, any board of township supervisors may determine and establish speed zones upon all or any highways under its jurisdiction. The township board shall notify the county of any changes and the speed zones shall be conspicuously posted at the beginning and ending of the zones. Driving in excess of the speed limit established in this section or by the township board pursuant to this section is a Class 2 misdemeanor.

32-25-12. Speed limit in unposted urban areas--Violation as misdemeanor.

In urban areas which are not zoned or posted as provided in § 32-25-7, the maximum lawful speed shall be twenty-five miles per hour. A violation of this section is a Class 2 misdemeanor.

32-25-13. Speed limit at obstructed railway crossings--Violation as misdemeanor.

When approaching within fifty feet of a grade crossing of any railway when the driver's view is obstructed, the maximum speed shall be fifteen miles per hour. A driver's view is obstructed if at any time during the last two hundred feet of his approach to such crossing he does not have a clear and uninterrupted view of any traffic on such railway for a distance of four hundred feet in each direction. A violation of this section is a Class 2 misdemeanor.

32-25-14. Speed limit in school zones--Violation as misdemeanor.

When passing a school during a school recess or while children are going to or leaving school during the opening or closing hours, the maximum lawful speed shall be fifteen miles per hour. A violation of this section is a Class 2 misdemeanor.

32-25-15. Speed limit at intersections with obstructed view--Violation as misdemeanor.

When approaching within fifty feet of and when traversing an intersection of highways when the driver's view is obstructed the maximum lawful speed shall be fifteen miles per hour. A driver's view is obstructed if at any time during the last fifty feet of his approach to such intersection, he does not have a clear and uninterrupted view of such intersection and of the traffic upon all of the highways entering such intersection for a distance of two hundred feet from such intersection. A violation of this section is a Class 2 misdemeanor.

32-25-18. Special speed limits for bridges--Posting signs--Violation of posted speed limit as misdemeanor-- Established speed as conclusive maximum safe speed.

The transportation commission upon request from any local authorities shall, or upon its own initiative may, conduct an investigation of any public bridge, causeway, or viaduct, and if it finds that such structure cannot with safety to itself withstand vehicles traveling at the speed otherwise permissible under this chapter, the commission shall determine and declare the maximum speed of vehicles which such structure can withstand and shall cause or permit suitable signs stating such maximum speed to be erected and maintained before each end of such structure. Violating such posted speed limits is a Class 2 misdemeanor.

The findings and determination of the commission shall be conclusive evidence of the maximum speed which can with safety to any such structure be maintained thereon.